Editorial

For The
Northeast
Farmer

JANUARY 1968

American Agriculturist
and the
RURAL NEW YORKER

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SIZE OF YOUR HERD

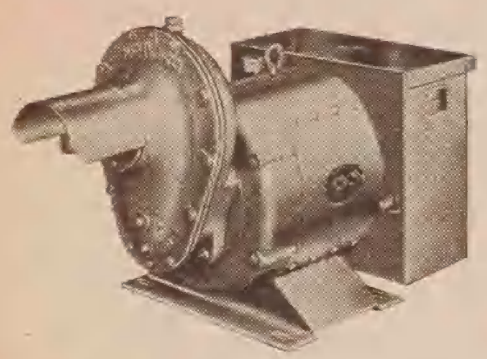
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American Agriculturist and the RURAL NEW YORKER

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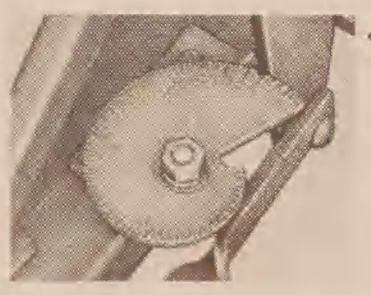
OUR COVER

What better way than this to enjoy a winter day? Photo by Eric Sanford.

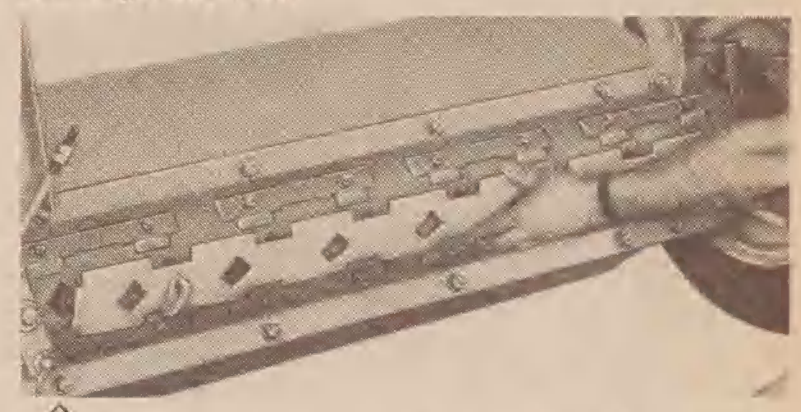
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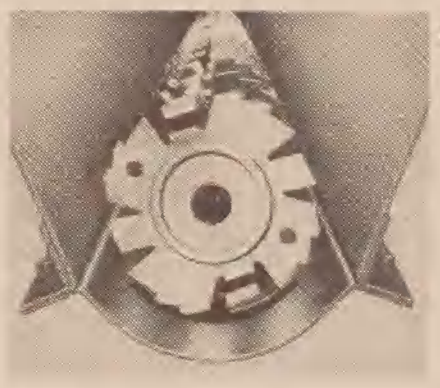
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EDITORIALS

by GORDON CONKLIN



A NEW YEAR

As a new year dawns, ours is a troubled nation . . . with lawlessness stalking the streets and anarchy waiting in the wings. Mutual distrust characterizes our people . . . Negro and white, rich and poor, conservative and liberal, "hawk" and "dove," labor and management, North and South, young and old. It is a "Grate Society" . . . the shrill demands of one group grating on the overly-sensitive nerve endings of other groups . . . an effect about like the TV commercials anatomically detailing the latest cure for sour stomach and excess bile.

Have you stopped and pondered . . . really thought about . . . the baffling fact that all this is occurring in a nation with the greatest material abundance ever known by any people at any time in the history of mankind? It's also a nation where educational levels are high, and scientific achievement fantastic.

Wealth . . . education . . . science . . . we have worshipped at the altar of each, but these are not enough. I didn't say we should reject them . . . I said they are not **sufficient** for the erection of the temples of abundant living. Education, science, and wealth provide the bricks and the steel, but the mortar is moral and spiritual. The sickness of our beloved land is from within.

How did it come about that the pursuit of happiness has led to larger and more crowded mental institutions . . . the pursuit of knowledge to ever-greater vagueness on issues that really count . . . the pursuit of security to an ever-intensifying sense of individual submergence and loss of identity . . . the pursuit of wealth to ever-larger indebtedness . . . and the pursuit of health to the rapidly-rising consumption of pills, potions, and "pot?"

We desperately need inner conviction more than political consensus, constructive concern rather than "luv", integrity to the point of being painful rather than image-building.

This preaching is directed at you and me, my friends. We shrug and agree with such moralizing . . . blindly observing that "they" ought to shape up! But the muscle fiber of a nation is made up of millions of links . . . and its character is shaped by each one.

Our challenge for the new year, yours and mine . . . to grow in our capacity to mortar together the ugly splits in our society . . . and to move the Golden Rule from the abstract into the bloodstream of daily living.

BEYOND LINE FENCES

I receive a surprising number of letters each year from folks . . . usually senior citizens . . . who predict terrible food shortages soon in the United States . . . this because "so many acres are going out, fewer farmers, and less interest by young people."

Judging from their own local neighborhoods, these conclusions might well be justified. But the fact is that this enormous country of ours is, for all practical purposes, one huge producing area . . . and a realistic assessment of its "food future" can be made only by looking beyond line fences and considering all its productive potential.

That potential, friends, is literally fantastic . . . beyond the ability of most of us to understand. The technological revolution that has gripped agriculture in this country for the past half century can best be characterized by "You ain't seen nothing yet."

In 1967, in spite of all their problems, U.S. farmers set **all time records** in production of many crops. Compared with the 1961-65 average, the '67 output was **up** by these percentages: wheat (27), corn (25), soybeans (37), sorghum (41), and rice (32).

Agriculture in the Northeast, as in the whole country, is a **growing** industry when measured by both total input and total output. Barring some calamity of enormous proportion, Americans will eat pretty high off the hog for the foreseeable future.

ED EASTMAN

The New York State Farm Bureau honored Ed Eastman at its last annual meeting by presenting him with its 1967 Distinguished Service Award. Part of the citation is worded as follows:

"The results of your efforts, your time, consideration and ability has made you a legend in your own time. Like the ripples that move from the stone dropped in a pond, your influence in education and agriculture has reached us all, and will be influencing New York State for generations to come."

I could easily "run off at the pen" about how richly I believe Ed deserves this high honor. Instead, I'll express to all Farm Bureau members Ed's sincere appreciation for it, and add my own congratulations to the flood of good wishes.

START 'EM YOUNG

I can remember as though it were yesterday when, as a youth of 12 or 13, I received my first day's pay from the local cheese factory. It was hard work . . . no coffee breaks . . . and the wage scale was 50 cents an hour. But it was a mighty big day in my life, and I went home feeling ten feet tall!

Times change, and the apostles of affluence now shake well-manicured fingers accusingly at farmers, calling them exploiters of our youth. State and federal laws are continually tightened up and, for all practical purposes, few farmers will dare hire anyone under 16 . . . and they'll hesitate some on those between 16 and 18.

Fortunately, the laws have not yet made it a crime to hire one's **own** children on the farm or around the home . . . although in industry the rules and regulations apply to all employees, including the owner's children if they work for Pop. If this ever becomes true of agriculture, the family farm . . . forced to an equal labor-cost basis . . . would move toward being displaced by big "corporation farms" hiring many employees.

In an attempt to associate at an early age productiveness with being paid, I've hired my own children (now 12 and 9) to do a variety of special jobs around the house, yard, and garden. This is against the advice of Dr. Spock and others, but on some things I'm an incorrigible.

Denied an opportunity to earn money, many youngsters use their parents' permissiveness to get unearned allowances . . . developing the very attitude of "something for nothing" later bemoaned by their parents. I'm too poor to afford the status symbol of affluent offspring, and am frank to admit it. My two may end up as delinquents . . . or worse . . . but they'll at least know something about productive effort.

LIVING WATERS

My prediction is that the most important agricultural development in the Northeast over the ten years will be subirrigation of crops . . . watering them from underground perforated pipes spaced at intervals across the field. This assumes, of course, that agriculture gets its fair share of the region's water supply . . . if not, all bets are off!

Perhaps 1967 . . . a "wet" year to most farmers after the previous parched years . . . provides the best proof of the need for irrigation **every** year. Weather records indicate that total rainfall in '67 wasn't above normal, but **it was ideally dispersed over the entire growing season** . . . which is what irrigation can provide every year.

Crops were generally excellent in most northeastern states last year, and the "natural irrigation" was the fuel that spelled "go" to the whole crop yield machine, already well supplied with all the other components needed for bumper crops.

Even in the best soil areas of the region, farmers are knocking their heads more and more against a "water barrier" that limits crop yields . . . without **enough water,** at the **right times,** no amount of fertilizer, top quality seed, and superior management will boost yields. Crop production is simply a matter of molecular rearrangement . . . plants rearranging molecules of hydrogen, oxygen, carbon, etc. into salable food or livestock feed. Water is an essential component in this rearrangement process.

Agway is planning tests of subirrigation at its recently-acquired research farm near Fabius, New York. Various college experiment stations have been trying out the practice, and industry has been busily developing the materials and techniques to do the job.

The possibility . . . a breakthrough with as much potential significance as the development of hybrid corn!

HEAD HUNTERS

New Hampshire is the only state of the Union without taxes on general sales, corporate, or individual income (except from dividends and interest). Beginning last May, though, the Granite State did begin collecting a head tax of five dollars per person on every resident between the ages of 21 and 70. Some years ago, you'll remember, a sweepstakes was engineered by New Hampshire with the hope of painlessly separating the taxpayers (especially those of neighboring states) from their money so schools could be improved.

Meanwhile, back at the ranch, real estate taxes have been jacked up to meet inevitably-rising public costs . . . and farmers have been bearing the brunt of the burden. Crushing real estate tax loads, and sub-par public services (often schools), usually accompany narrowly-based taxing systems.

I live in a state (New York) with the highest annual per capita state-local taxes around ($410) . . . including individual and corporate income tax, general sales tax, and real estate tax. Maybe it's just that misery loves company, but I still wonder whether New Hampshire shouldn't join the 20th century and broaden its tax base.

How about it, you Granite Staters?

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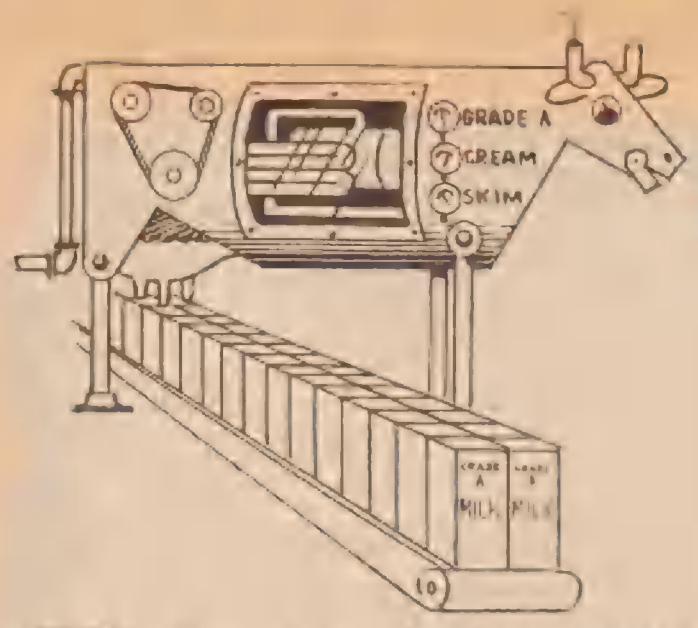


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STAINLESS STEEL COWS

by Gordon Conklin

HERE are some questions and answers about imitation milk . . . a topic of great concern to dairymen. For the sake of brevity, let's occasionally call this imitation product FAKE (Farmers' Are Keenly Excited), and the other REAL (Rich, Edible, And Lactated).

Just what is imitation milk, anyway?

It's a white food liquid made up of a nonanimal fat (usually coconut oil), fluid skim milk (or nonfat dry milk powder), and an "imitation milk base mix." The base mix contains emulsifiers and stabilizers . . . usually monoglycerides and diglycerides, sodium caseinate, and carragreenan. In some cases, corn syrup solids are an additional ingredient, and soy protein can be used.

In fact, it is possible to make imitation milk without using any animal fat, or any milk solids. At the moment, there are taste problems with this product, though.

California regulations require a minimum of 3 percent fat in FAKE (3.5 percent butterfat required in REAL). In general, most imitation milks have around 3 percent fat.

Ironically, this fat is usually in the form of coconut oil . . . which has taste advantages over other fats . . . but is also highly saturated. Many cholesterol-worriers, though, accept the implied message of the FAKE container, "No Animal Fat," and mistakenly believe they're staying away from having cholesterol clog their pipes!

What special processing equipment is needed for making imitation milk?

None . . . the "real milk" processing machinery can easily handle the imitation product. Techniques, as well as equipment, are also the same . . . and milk handlers report that the processing cost is the same for both products.

Why would anyone buy FAKE?

Well, price is one obvious reason. In Arizona and California . . . states where FAKE has been on the store shelves longer than anywhere else . . . the difference in retail price is in its favor by about 10 cents per half-gallon (5 cents per quart).

In general, the distributor's margin is higher with FAKE . . . so consumers get their "milk" a bit cheaper, and the dealer makes more money per unit sold. Bluntly, milk fat is . . . and has been a long time . . . more expensive than vegetable fat.

Furthermore, that saying about milk being "nature's most perfect food" doesn't overly impress many professional nutritionists or food industry experts. Most of them agree that milk is a fine food, but they also concur with Professor R.F. Holland (head of Cornell's Food Science Department) when he says, "There are indications that it may be possible to improve on nature and give the consumer a better product than the cow produces."

Unfortunately, restrictive laws have prevented the dairy industry from modifying milk to fit changing consumer desires . . . stabilizers for better flavor and keeping qualities . . . low sodium for people on a reducing diet. Furthermore, there has been no attempt to standardize the nonfat solids to around 10 percent in regular whole milk. A number of major market tests proves that this step would provide a product with higher consumer acceptance . . . as well as insuring greater uniformity of product, and increased reliability in nutritional values.

The FAKE people, though, aren't "protected" by any such legal apron strings, so they can do something quickly about responding to trends in consumer tastes . . . and the fact that there are many kinds of consumers.

What do you mean . . . many "kinds of consumers?"

Well, the head-shrinkers who study our inner psyches . . . motivational research, they call it . . . tell us that an affluent society is not a homogeneous mass of consumers. Rather, it's like a pasture in which there are different breeds . . . the food faddist who eats only yogurt and banana peels . . . the price nut whose only concern is getting the mostest for the cheapest . . . the status seeker who wants only the best . . . and so on. To be competitive, an industry needs to have a product for each segment of the potential market . . . "product proliferation" are the $64 words.

But the dairy industry hasn't been developing enough new products, and it shows signs of panic at a new competitive product.

What's the status of FAKE in the Northeast?

"Udder confusion" is about the best answer; the situation changes from day to day. FAKE is being sold in New York and Pennsylvania, but not in New Jersey or New England.

Massachusetts and Connecticut have filled-milk laws prohibiting the sale of imitation milk, but these could undoubtedly be overturned in the courts . . . as they have been in some other states.

In Arizona, FAKE has been growing steadily in its share of the total milk market. It's still well under 10 percent, but the evidence is clear . . . FAKE can displace some REAL in the marketplace, particularly when the imitation is skillfully merchandised.

How is imitation milk being merchandised?

Well, the Petelinz All-Star Dairy at Newburgh, New York, advertised its "Melka" as being less expensive and with longer shelf life. "Tingle" is promoted as "cheaper, no animal fat, high in protein, lower in calories than whole milk, less calcium, and milder in flavor than milk."

General Mills advertises its cream-replacer called Bonus by bragging in the heading, "Cream, we're not." The blurb compares cream and Bonus in terms of the latter's lower cost, fewer calories, uniformity of product, and long-keeping qualities.

Dairymen have a real story to tell, but it remains to be seen whether they'll unite to tell it as effectively as the corporations whose executives are thoroughly acquainted with the selling power of good promotion.

Why hasn't the dairy industry come up with more new products?

Well, Uncle Sam has stabilized the dairy market for the last 20 years, and all he demands is 92 score butter, or other milk products meeting certain technical specifications. The consumer is interested in new products, but bureaucrats in their official capacity merely desire a product easily adapted to accounting and handling procedures.

Legislative restrictions . . .on butter at the federal level . . . and on most other dairy products by states . . . have inhibited new product development. As the saying goes, "The only thing about butter that has changed in over 100 years is the size of its subsidy." It's uneconomic to risk large sums on research in an industry where court cases in state after state might ensue in an attempt to get wide distribution.

Isn't there something immoral about using imitation products?

Well, was it immoral for dairymen's wives to switch from silk to nylon stockings? Or from wool to "Orlon" sweaters? Or changing from metal thermos jugs to plastic ones?

How about dairymen switching from metal to plastic pipes in their barns? The rubber tires on farm equipment are usually synthetic . . . rather than real rubber. Urea, widely used in animal feeds, is a synthetic source of protein.

The reaction to "fake" anything pretty much depends on whose foot the shoe is on . . . good if you're buying, bad if you're competing!

Should I sell my cows?

There is no reason to push the panic button, or order a gross of crying towels. Imitation milk will likely become a significant competitor to fresh fluid milk over most of the country. Hopefully, dairymen and their organizations will finally make long-needed changes to meet the threat . . . basing a larger part of milk value on its nonfat-solids, for instance.

FAKE will, of course, exert downward pressure on Class I fluid milk prices. Dairymen will have to be more sensitive to the marketplace in milk pricing.

There oughta be a law!

As already indicated, there are some state laws against the sale of filled milk . . . and there's a federal law prohibiting its interstate shipment.

But the dairy industry got licked in its bitter battle against colored oleomargarine . . . and dairymen earned a bad name among many consumers for what looked like a purely partisan power play. In these United States of 1967, it's very unlikely that either legislatures or courts will allow farmers to eliminate competitive products by declaring them illegal.

Labeling, sanitary, and honest advertising regulations, of course, are desirable and acceptable.

Professor R.F. Holland of Cornell's Food Science Department, speaking of the dairy business, sums it up, "Unless our industry stops thinking in terms of restrictive legislation and turns toward progressive development and promotion, it will cease to be a significant factor in the food picture of the future."

HOW NOW, REAL COW?

At a recent meeting called by our milk cooperative, we the membership were told that, "Our Board of Directors had decided it was in the interest of our co-op to make and distribute imitation milk." I, and a very few other members, didn't agree.

I definitely believe that a farm marketing cooperative has to have as its basic objective a commitment to sell and promote products from the farm and its membership. I also believe that if enough people (and their marketing organizations) have faith in the cow, she will meet all kinds of competition. The cow can maintain her share of the fluid market only when she has enough real friends or allies.

The idea that a farm marketing co-op should distribute the competitive product is an open admission, which gives the consumers the idea that even we "cow people" believe that the new white fake juice is good enough to drink!

Another idea that really irks me is how a board of directors can make such an important decision without testing membership reaction to get its approval. As a representative of the "grass

(Continued on page 9)

A Case man's baler costs him 50 parts less

The simplified Sweep Feed design of a Case 230 baler eliminates the cost and upkeep of as many as 50 conventional baler parts. Your gain is an easy-to-own, family-size baler that is not only sensibly-priced but easier on you and your hay. The simple sweep fork whisks hay into the chamber in one gentle motion—preserving the leaves and feed quality. The fork is direct-connected to and powered by the plunger—they can't get out of time. The bales are firm, sure-tied 14x18. Add a Case launcher and you eliminate the "man on the wagon." Powered by the baler plunger, the launcher runs only when it's throwing a bale—no chewed bale ends or burned twine. See this cost-cutting new haying team at your Case dealer. He'll work out a Crop-Way Purchase or Lease Plan to fit your budget. J. I. Case Company, Racine, Wisconsin.



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CASE

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Doc Mettler Comments On

FOOT AND MOUTH DISEASE

The author is a practicing veterinarian at Copake Falls, New York

Are you one of those people who eats pie from the crust end instead of the point, and reads magazines from the back? If you are, do you have a reason for it? Eating piecrust first perhaps leaves the best part till last, but reading a paper or magazine from the back often gives you a chance to read things that are important and of interest, but would be missed if you got bogged down on the "headline" stuff in front.

Tacked on the end of many recent newscasts has been the information that Great Britain has been suffering one of the worst outbreaks of foot and mouth disease in its history. To those of us who make our living from livestock this news is far too important to ignore. We know that the jet airliner has made any spot on the earth only hours away, yet casual mention of this important news is apt to leave us unconcerned.

Until recently, any outbreak of foot and mouth disease in this country or Canada was near a sea port, and was quickly stamped out by the quarantine and slaughter method. But do you remember the last outbreak in Canada? It started out in Western Canada, and was believed to have come in on the clothing of an immigrant.

Meat scraps in garbage are usually blamed as the carrier of the diseases into this country. However, this last outbreak in Canada was made possible because of the fact that the virus of foot and mouth, when dried, can remain alive for months. Thus a piece of clothing could become soaked with virus from the saliva or blisters on a cow's mouth, be dried, and if kept dry could infect a cow with the disease months later when the animal licked the same piece of clothing.

The Symptoms

I dislike alarmists, and don't want to be one, but if every livestock man in this country knows what foot and mouth disease looks like the chance of immediately detecting an outbreak and controlling it is much greater. Since I have never seen foot and mouth disease (and hope I never do), all I can do is report to you the symptoms as found in the book.

Foot and mouth disease is caused by a virus. It seldom kills more than a few cattle, but it will cripple a herd as far as milk and beef production is concerned, because the sores in the mouth keep the cow from eating for weeks. Besides this, secondary infection such as mastitis can kill animals or put them out of production. Since in this country there is no immunity to the disease, the usually low mortality rate might be much higher. Control by vaccination has not proved helpful. The cold facts in the book can't tell us half of what might happen if foot and mouth disease became out of control in this country.

Like all virus diseases, the first symptom of foot and mouth infection is fever. Within a day blisters appear on the tongue, lips, and sometimes on the muzzle, teats, and between the claws. Usually it affects the entire herd in a matter of a few days, since the incubation period is only from two to four days. In other words, if your herd came down with it you'd have most of the herd sick in a short time. They would be off feed, slobbering, and some would be lame.

Yes, this could be virus diarrhea, IBR, or any of several other diseases that your veterinarian could easily tell from foot and mouth disease. Or it could be vesicular stomatitis or some similar virus disease that causes blisters in the mouth, and your veterinarian would have to call in help to make a diagnosis.

Affects Other Animals

As a matter of interest, foot and mouth disease affects all animals but horses, though mainly cloven-hoofed animals. Vesicular stomatitis affects horses and mules, but can also affect cattle and swine. You may be familiar with vesicular exanthema which affects mainly swine, is often confused with foot and mouth disease, and was given a lot of publicity a few years ago when it was nearly eliminated by cooking of garbage.

You can be sure that if you call your veterinarian because you have some sick slobbering cows he will be just as concerned as you, and just as relieved to find it something other than foot and mouth disease. Expect the ordinary, and try to reason out things the same as always . . . but in the back of your mind keep the information that foot and mouth disease virus is only five hours away by jet and it could happen here!

American Agriculturist, January, 1968

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Stainless

(Continued from page 6)

root," I have been led to hold the illusion that we, the membership, set policy and determine the co-operative's future. The decision to handle imitation milk by our co-op certainly was not sponsored by the "grass root" membership, but was made directly by the leadership.

I think the time has come when we, the real friends of the dairy cow, will have to take a tough stand! We must demand that the leadership of our marketing associations act in the members' best interests rather than in the interest of organization and "food industry people", who probably could care less about the future and welfare of our real cow. — *Raymond Aasen, R.D. 1, Ludlowville, New York.*

FACTS OF LIFE

Mr. Aasen's feeling about the Dairymen's League selling so-called imitation milk is understandable. As far as actually wanting to handle the product goes, there isn't a member of the League's Board of Directors who disagrees with him.

The real question is not a matter of desire, but a matter of practical necessity.

League president Lester Martin dealt with this question squarely in his November "Report to Members." He said: "One thing is evident; we are part of a total food industry. We are not sitting in isolation, safe and secure in control of a segment of the consumer market. If we dairy farmers, dairy distributors, co-operatives are to survive in a fluid, changing society, we must cope with competition . . . beat it at its own game. Wringing our hands and crying 'foul' won't win the ballgame.

"As an industry, we've more or less sat on our hands and watched two-thirds of the table-spread market move into other hands while we fought a losing legal-legislative battle. We've seen upwards of half the dessert-topping market leave us. We've been slow in responding to the challenge of the vegetable fat 'coffee whiteners' and have lost a substantial part of our cream market.

"Now the challenge is facing us where we live: fluid milk sales. Resentment and technical-legal maneuvers are not enough. If a product is being sold . . . particularly one in which the single most important solid is milk powder . . . let's see that dairy farmers are a factor in the market. The alternative? Eventual control of filled milk sales by the vegetable oil marketers . . . with no part of the market return going to farmers."

Faced with the fact that the filled milk product is already here, the League has moved to protect its members' fluid markets. When a customer for League milk demands "Melloream" along with his fluid milk, we will make it available. The only alternative is eventual loss of the total sale.

The League's Board has, however, stipulated that our filled milk product will not be advertised or promoted in any way; only identifying streamers for use in dairy cases are authorized. The Board further required that a promotional message for fluid milk appear on one panel of the "Melloream" carton, and this has been done. Finally, and most important, Dairylea "Melloream" will become available only in those markets in which someone else has already introduced the imitation product, thereby creating the competitive situation that has to be answered.

It should be added that, even before the filled milk product had grown beyond one small dealer in Newburgh, New York, the League had: (1) Requested New York, New Jersey and Pennsylvania Attorney Generals to enforce statutes now on their books restricting the use and labeling of filled milk; (2) Requested the United States Attorney General to enforce the Federal Filled Milk Act which forbids the shipment of filled milk in interstate commerce; (3) Prepared and submitted to members of the Legislature suggested bills to require the regulation of filled milk on a par with fresh whole milk (this relates to auditing of dealers books, licensing, inspection etc.); and (4) Moved for consideration of amendments to the appropriate federal marketing orders to price the fluid skim and non-fat powder used in the imitation at a Class I level.

We don't presently believe that filled milk will be a big factor in northeastern markets. But to the extent that it gains consumer acceptance, the League intends to see to it that it is properly regulated, that farmers exert some direct influence in the market, and that whatever returns are available find their way back to farmers.

If anyone has a better answer, we haven't seen any evidence of it. — *Bruce Snow, Editor, Dairymen's League News*



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by Bob Cudworth

A rural sociologist could have explained it better . . .

But it was interesting to note the similarities in viewpoint on "worker efficiency peaks," and the need for relaxation, in a visit to three dairy farms in Wyoming County, New York—Eugene Strome, Warsaw; Robert Cummings, Wethersfield Springs; Kenneth Winter & Sons, Perry Center.

All three farms had recorded exceptionally high figures in 1966 for milk production per man, but all agreed that a dairyman has his efficiency peaks and lows like any other businessman, and needs time off regularly to recharge the batteries.

ROBERT CUMMINGS

Bob Cummings recorded 560,000 pounds of milk per man in 1966 when he handled 73 cows with the help of a younger brother in summer. Now, another brother, Richard, is working with him full time. They have built the herd up to 85 milkers, and expect to finish the year with about 580,000 lbs. of milk per man.

"I would never go back to handling it all by myself again," points out Bob. "Having two of us gives each of us some time off each week . . . allows me more time to think and manage."

Bob started working for a local dairyman while still in high school, and he gradually accumulated about 25 animals and considerable machinery of his own. He received the National Star Dairy Farmer award from the Future Farmers of America in 1963, and on the following January, he bought his present farm from the man for whom he had worked.

Seeing the need to expand, he started building a free stall barn and hoped to have a milking parlor by '68 or '69. Things went better than he figured, however, and he started using the parlor about a year ago.

He now has 60 free stalls and 20 stanchions. He especially uses the stanchions for feeding grain to fresh cows — diverting them into the stanchion barn after they go through the milking parlor.

He follows a "lead feeding" program with his fresh cows and feeds up to 24 pounds of grain daily to each one producing 80 pounds of milk or more. Grain is fed in **both** the milking parlor and stanchion barn.



Robert Cummings feels that corn is the feeding key for his dairy farm.

Silage is augered into a bunker feeder at the rate of 45 to 50 pounds per cow daily. Ten pounds of hay per cow are fed daily. Haylage is put in the silo at second cutting and used as a fill-in until corn silage is ready.

"I feel corn is the key to efficiency on a dairy farm," Bob points out. "Good corn silage is hard to beat for making milk, and there's not a lot of worry about how to harvest it.

The milking parlor is the 'nerve center' of our dairy operation. I'd never go back to a stanchion barn. The first couple years I was doing all the milking in the stanchion barn, as well as the field work, and I was dog-tired at the end of every day."

In commenting on milking efficiency, he noted that he thought 100 cows was about the maximum that one man can handle in a milking parlor, especially if he's doing field work too. "I can handle 85 cows in about 2½ hours, but 2½ hours of milking at a stretch is about all I can do efficiently and properly.

"We like the low-line pipeline and our wide pit . . . and our heated floor works well. I feel a double-3 is ideal for one man, and that a double-4 is not practical. If we ever expand a lot, we'll put in another double-3 and send the cows through in shifts.

"Another thing we think is good is an electronic accounting service, because it points out our weaknesses compared to other farms. For example, when we were looking for ways to cut costs, we found we could do more of our own veterinary work . . . such as clipping cows' feet . . . and saved ourselves $800 in one year!

"We feel it's important to go on extension tours, take courses, and learn things," continued Bob, "and having two men instead of one makes this possible."

EUGENE STROME

Eugene Strome used to be a DHIA milk tester, and got into farming by buying a few heifers at a time.

Last year he handled a 45-cow herd by himself and had production efficiency of better than 550,000 pounds of milk per man. Although he now has 62 milkers, output per man will drop this year because he has added a man. By next year they figure to have 75 milkers.

"With two of us now, we alternate having Saturday night and Sunday off. My wife has reminded me for some time there is more to life than just work," notes Eugene. "It's important to have some time off.

"We're limited on hay space so we are gradually emphasizing more corn silage. We have 82 acres of corn and may wind up shelling some for mixing in a ration of our own. We have 125 to 130 acres of hay . . . Narragansett alfalfa, birdsfoot trefoil, and Climax timothy.

"That bunker silo by the barnyard will hold 400 tons of corn silage. We also have a concrete upright silo. We feed ensilage in the barnyard in the winter, by taking the tractor and scooping it out from the bunker.

"We don't feed any silage in summer, but as soon as pastures run out, we start feeding 'green-chop.' Of course we feed hay in the barn all summer too.

"I guess you'd say we feed heavy on grain. We use a 16 percent-protein pelleted concentrate and feed up to 25 lbs. daily to a cow producing around 90 pounds of milk.



Eugene Strome uses stanchions and a transfer station . . . is considering a milking parlor.

"When we get up to 75 cows, we'll probably add 25 stanchions to our present barn. We use a dumping station with our bulk tank now . . . and it certainly saves a lot of lifting and lugging. We might go to a milking parlor setup in a few years. That's why we'll make any additions to our present barn so they can be used for young stock if we go to free stalls later.

"With two of us milking, we use six milker units along with our dumping station. This gives us good efficiency, as well as allowing us enough time to take proper care of the cows," Eugene comments.

KENNETH WINTER & SONS

Charles Winter says they should average more than 600,000 pounds of milk per man in 1967 with 125 milkers. In 1966, the farm showed 525,000 pounds of milk per man.

Kenneth Winter is not active in the farm operation any more. Son Charles handles the field management and son Gerald handles the dairy herd.

"We pay awfully close attention to the milking," says Charles, "because we can probably make more money per hour in the milking parlor than any place else on the farm."

The two brothers handle the milking chores, and they don't hurry them. They each work a double-3 milking parlor and each puts through about 30 cows per hour . . . 25 per hour when there's a lot of young cows.

"We've never tried to milk too many per hour since our first year with the milking parlor. With two of us milking we were putting through 85 per hour, but we found we were getting a lot of mastitis, so we slowed down.



Charles Winter in one of two adjacent double-3 milking parlors.

"Psychology is an important factor in doing a good job of milking. I know that two hours at a stretch is about all the milk-

(Continued on next page)

ing I want to do, because I start thinking about all the other jobs that need doing.

"It's a real puzzler with hired help too. Actually, milking is one of the easiest jobs on the farm – but unless you can get a man and his family really interested, then he isn't going to do a good job.

"Time off is getting more and more important with hired men . . . because the wives pressure them for it. Our folks usually have every third weekend off . . . and in some cases, every Sunday off."

The Winters built their present barn in 1961 for loose housing, and switched it over to free stalls in 1964 . . . as well as putting in the two double-3 walk-through milking parlors.

Paid Off

They are convinced the move has paid off with improved labor efficiency as well as helping to accomplish higher milk production. The change, along with improved breeding and a change in feeding program, has boosted the herd production average by 4,000 pounds of milk since 1961. The rolling average for 125 cows now exceeds 14,000 pounds of milk and 500 pounds of butterfat.

"We used to go real heavy on grass silage, but didn't feel we were getting enough energy so we went to 80 percent corn and 20 percent dry hay.

"We have corn silage in one silo and haylage in the other. From October through June we auger both corn silage and haylage into the bunk feeder at the same time . . . about 50 pounds of corn silage and 30 pounds of haylage per cow. Part of the time . . . about September to February . . . we add 5 pounds of grain per cow in the bunk feeders. Then there is 4 pounds of hay per cow daily and 12 to 20 pounds of grain. Grain is fed in the milking parlor.

"Summer feeding from June to October is mainly haylage because the corn is used up and we like to feed cows low-energy feed during their dry period. Most of our herd is August - freshening.

"We use corn silage a lot," points out Charles, "but we have plans to go to some high-moisture shelled corn and haylage."



Frigidome, the all-aluminum, high-moisture corn storage and conditioning unit introduced to farmers last year, is on permanent display at Pioneer Industrial Park, 2335 West Altorfer Drive, Peoria, Illinois. Briefly, it's a system that refrigerates grain and thereby prevents spoilage.

MILKER MAINTENANCE

To keep a milking machine perking along and doing a good job, here's a schedule developed at the University of Vermont of what to do when:

1. Change oil and flush vacuum pump four times a year . . . every three months. You don't forget changing the oil in your car, do you?

2. Clean the vacuum relief valve at least every month. Some folks think if a little vacuum is good, then a lot more must be better . . . and how Bossie moans!

3. Clean vacuum lines and stallcocks every month too. Slugs of water or milk in these lines work wonders at lousing up a milking system!

4. Every 6 months, check all gaskets and valves . . . replace 'em if they even look like they might be considering leaking! At the same interval, check cubic feet per minute (CFM's) and vacuum level being delivered by the pump . . . the latter normally 12 to 15 inches of mercury. Just because it worked fine a year ago doesn't mean it's doing great today.

5. Every other month clean and check pulsators. This gizmo regulates the "heartbeat" rate of the milker.

6. Change inflations at least every 4 months, and rotate sets so "off" set can be cleaned in lye.



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Gayway Farm Notes

by HAROLD HAWLEY

BOUQUETS

This fall the state highway crews put a strip of asbestos material on each shoulder of Route 34 in our area. I have no doubt this was done on other roads elsewhere, but inasmuch as we use this road a lot it will serve to illustrate the point.

This highway had always had graded gravel and dirt shoulders seldom smooth enough to drive on with a tractor and load, and not firm enough to use much of the time. Besides this, when they were soft after a rain or thaw they constituted a real hazard for a motorist when he pulled off the pavement for any reason.

Now with the smooth, hard surfaced shoulder, tractor drawn rigs can stay clear off the regular highway. This is a real step forward in safety. Likewise, it is going to avoid a lot of the ill-will which always occurs when motorists have to slow way down until they find a chance to pass slow moving equipment.

Another safety feature, of course, is that a car or truck can drive onto the shoulder without danger of being pulled around by the soft mud. Already we have seen two instances where people have been forced on to the shoulder while travelling at high speeds. No harm done!

Another little detail the highway men took care of was to set all mail boxes about a uniform distance from the pavement. The snowplow crews should applaud this. Also, it will save some lives and fenders. It's a major hazard when someone who is travelling on the shoulder suddenly pulls up on the highway as he swings around a mail box.

How Are We Doing?

We all owe the highway folks a real vote of thanks for the job they have done. Maybe it's now time to ask how well we farmers are doing to make the highways safe. Almost equally important is to ask how well each of us is doing in our relationships with the motoring public. In these days when farmers have become such a small minority, it is increasingly important that we do all in our power to see that no farm machinery on the highway causes accidents. Our courtesy to and consideration of others on the highway as we move farm machinery will have a real bearing on whether our equipment is some day legislated off the highways.

Most of us, when we switch from driving a tractor to driving a car, seem to assume a changed personality. We find ourselves fretting and cussing when we are held up by someone moving a combine. Likewise, we work up quite a head of steam because that so-and-so with the manure spreader won't pull over on the shoulder and let us and others go by. If we feel this way, imagine how non-farm drivers may feel. Their cussing may well end up being translated into more stringent regulations limiting when and how wide machines may be moved, etc., etc.

I'm satisfied that a little courtesy and consideration on our part toward the others can do more to prevent undesirable regulation than all the lobbying effort that our farm organizations can bring to bear. This is our job . . . each of us . . . every time we get our equipment on the highway.

There is another little safety gimmick that we should all be using for our own protection as well as to help in the prevention of accidents. This is the "slow-moving vehicle" sign. They were available quite a while before we finally broke down and got some. They are so good that we now feel quite naked and unprotected without one on the back of any of our equipment that must be moved on the highway!

It's been amazing to me that while I'm still in the field picking, I can spot a load of corn headed toward home by that brilliant orange sign on the back of the wagon long after the tractor and wagon have ceased to be discernible. It's comforting to think that any car or truck can also see them from afar off and act accordingly.

BONANZA

The horn-of-plenty should overflow to the person who first comes up with Recreational Equipment for Cows. Remember how we used to hang a cabbage above the hens back when they were "loose-housed"? I always doubted if they got all that much good from what they ate, but certainly as a diversion, an exerciser, and as a deterrent from picking each other the cabbage had merit.

How different would a sand-filled bag suspended from the ceiling be in a free stall barn? The variations that could be worked out for cows to rub, bunt, lick, sniff, or just plain push something around are endless. The way they seemingly find an outlet for their curiosity and belligerency as they give their

(Continued on next page)

attention to anything that can be moved suggests we might actually help to increase their contentment by the introduction of some recreational gadgets.

The first fellow in this new field will no doubt make a killing. All I expect from him for the idea is a chance to borrow enough of his new riches so I can pay cash when I stand in line to buy his products!

GIFT EXTRA-ORDINARY

During the cold weather months many farmers suffer from cracked, chapped hands. We are no exception, but since installing a water softener for all but the drinking water at the barn this has been less of a problem. Washing udders in hard chlorinated water was the job which most severely hurt our hands.

Last fall we bought some stuff in a jar ("Udder Care") for chapped and cut teats. It turned out to be the best stuff ever for hand care. Doris soon wanted some for her hands, and declared it to be better than the perfumed, more-expensive cream she had been using. I've nothing against the hand cream manufacturers, but if you can't find a product by another name which is better for hand care and more economical, then for goodness' sake buy your wife a jar of "Udder Care".

RECORDS AND ACCOUNTS

If there is any one thing that everyone seems able to agree on, it is on the need for good records and accounts for the farm business. With so many firms and groups experimenting on this, it seems a certainty that some better systems will emerge. Just a more sophisticated method with computerized summaries and analyses is not necessarily the answer.

There are many other requirements or at least details which are important to some people, but four general basic features seem to be musts:

1. There needs to be enough separation for itemizing into accounts to enable a farm family to analyze at least the major enterprises for profitability.

2. Certainly there needs to be provision for quick summary and running totals. If never used for anything else, this would pay off big along toward the end of the accounting year as decisions are being made whether to defer or hasten purchases or sales for income tax purposes.

3. Some provision needs to be made for inventory entries as a part of the picture of growth or change, and as a prime ingredient in any statement to any potential credit source.

4. There should be income tax service. This can vary widely in its completeness but more and more there is a need for competent men to help with the income tax forms.

There have been many excellent record keeping arrangements for years. It has become very costly to hand enter the various items of expense and income. This has led to the use of codes, cards, and computers. Hopefully, this gadgetry will overcome one drawback of the past . . . prohibitive time lag between the completion of the accounting period and the completion of the records and the analysis made from them.

Possibly, too, more comparisons can be run between an individual business and the average of the rest of the group or the average of the top third, etc. It's no use to keep all the records unless the summaries tell us a lot of things that we need to know. Among these are the profit or loss on major enterprises, plus a comparison with others in somewhat similar businesses.

Next, it seems desirable to have a comparison with other possible enterprises. Certainly records should help us to move in or out of enterprises based on the relative profits for the various enterprises.

As our credit needs increase, so does the need for meaningful statements to our bankers. Any good accounting record keeping system should provide the basis for an accurate statement.

As we move from the days of making out our own income tax returns, we must depend less and less on our memories and interpretations and more and more on figures that remain clear, understandable, and available to everyone.

One of the best things about this whole business is that a lot of reliable competent people are interested in setting up a satisfactory system to sell to farmers. Competition being what it is, we will surely have better systems, better and faster analysis, geared to our needs in the not too distant future. When we do, these may well be among our most useful profit-producing tools, as has been the case in the past even with all the imperfections of any of the systems we have seen to date.

test drive a '68 manure spreader

next time you spread manure, we'll furnish the spreader



DEMONSTRATION AGREEMENT

Hawk Bilt Mfg. Corp., Vinton, Iowa, leading manufacturer of side-delivery, chain-flail manure spreaders, will supply, without obligation, a demonstrator model of its patented SideKick Manure Spreader for you to use on your farm with your tractor. Your nearest Hawk Bilt dealer will deliver the spreader to your farm and demonstrate proper loading and spreading techniques. You may operate it yourself and see firsthand its ease of loading; ease of handling; wide, even spread; ability to spread packed solids or soupy liquids; and its maintenance-free operation backed by a one-year warranty.

By taking advantage of this unusual demonstration offer, you assume absolutely no obligation, either to the dealer or manufacturer.

In order to qualify, you must be an operating farmer, owner or tenant, with livestock requiring manure disposal. Your dealer will demonstrate with the Hawk Bilt SideKick and can provide literature on our 3-ton, 4-ton, 5-ton and 6-ton models. Simply complete the application below and mail as addressed. Allow up to three weeks to be contacted by your dealer.

Hawk Bilt Mfg. Corp., Vinton, Iowa

HAWK BILT
VINTON, IOWA

DEMONSTRATION APPLICATION | Hawk Bilt Mfg. Corp., Dept. AA-12 Vinton, Iowa 52349

☐ I apply for a SideKick demonstration on my farm. Please have the nearest Hawk Bilt dealer call me for an appointment. I understand I assume no obligation.

NAME _____

ADDRESS _____ PHONE _____

CITY _____ STATE _____ ZIP _____

Type and number of livestock _____

☐ Please send literature only.

Don't be a...

BABE IN THE WOODS



A WIDOW called American Agriculturist not long ago with a sad story of business loss to a timber buyer . . . claimed he'd cut unmarked trees and in general overstepped the legal bounds. She was understandably disillusioned and discouraged with the whole deal. Now, there are lots of square shooters among loggers, but the occasional crooked timberman can be a mighty bad apple!

The basic problem you have as a woods owner . . . whether dealing with reputable or dishonest loggers . . . is that he's in the business every day, whereas you may sell timber only once in a lifetime. He's going to have the edge when it comes to offering a lump sum for all the salable timber "on the stump." The best approach to any negotiation that puts an amateur up against a professional is for the tenderfoot to get some competent help . . . to sort of close the "proficiency gap."

Free Advice

There is some advice available without direct cost to you . . . county agent, Soil Conservation Service technicians, regional or county forester (depending on the state), forestry specialists at colleges of agriculture, etc. These folks will provide technical help on woodlot management pointers, give you sample timber contracts, select trees ready to harvest, and the foresters will provide you a close estimate of board feet of lumber in the trees he has marked for cutting. Keep in mind, though, that these employees of public agencies are not in a position to become involved in any lawsuits between you and the timber purchaser . . . nor will they enforce agreement stipulations, or ride herd on the logger's activities in your woods.

Professional consulting foresters will "stand in your place" and protect your interests during the logging operation . . . for a fee. A contract between you and the buyer should be looked over by a competent attorney. Don't expect these professionals to work for peanuts . . . what they save you in potential loss and headaches will usually be worth the cost many times over, especially if a sizable amount of timber is involved.

Go Slow

Take time to select the timber buyer. Visit with people associated with the timber business about the merits (and demerits) of several possibilities. Narrow the choice to 2 or 3 and then check with landowners whom these buyers have recently "lumbered." Above all, don't decide in haste and repent at leisure.

There are numerous publications available on the rules of the game, estimating timber, etc . . . ask your county agent how to get them. Trees are like hard cider . . . more valuable with age . . . so don't be in a rush! You can develop considerable skill yourself in marking and estimating timber just by reading carefully, and investing some time in the woods. And, if you know your way around in the woods, you can keep a weather eye yourself on the logging proceedings every now and then . . . heading off the temptation to fudge just a bit on the deal.

Trees for timber are merchantable if they measure at least 12 inches in diameter at breast height (DBA) or 4.5 feet from the ground. Veneer logs (birch, for instance) should be at least 20 inches in diameter before being cut in order to get the long dollar.

Uncle Sam always goes into your woodlot with you . . . expecting to get a cut in the form of income tax. Don't forget, though, that in most cases he allows you to figure timber sale profits as capital gains, and that a depletion allowance can also be deducted from the gross sales price. Both items (especially the latter) can be complicated to figure, but worth the effort!

Not many northeastern farmers consider their woodlots as very important sources of income. They can return something to help the cause along, though, and they require a minimum of management time.

American Agriculturist, January, 1968



FRUIT

Machine-Harvesting — With mechanical apple harvesting now a reality, researchers at Cornell University are concentrating on harvesting fresh-market apples (which make up about half the State's annual apple crop). Two new mechanical devices have been designed and field-tested . . . the engineers "shrank" the original catching frame to about half the size, looking to the fact that the general trend in New York State and elsewhere is toward planting dwarf or semi-dwarf trees. A new shaking unit carries two shakers . . . one for the trunk and the other for limbs.



Complete with small catching frame and water tank on the ground level, this experimental harvester has worked well in a series of field tests.



Looking like a pinball machine, on this harvester a wall of rubber-padded prongs is inserted into apple trees, and this slows the fall of the apples and enables the harvesting of bruise-free fresh-market fruit.

Tree-Heat — A new frost control consists of low-cost petroleum coke bricks called Tree-Heat. Each brick weighs approximately 2 pounds. They are easily ignited, giving off a low, intense flame. A 4-pound package (2 bricks) will give off effective heat for 4 hours; the 6-pound package gives higher heat over a longer period. Tree-Heat has been tested across the continent on citrus trees, deciduous trees, and on row crops such as tomatoes, tobacco, blueberries, etc. A copy of the brochure explaining it can be had at no cost from Mobil Oil Corporation, 150 East 42nd Street, New York, N.Y. 10017.

Fruit Tree Survey — A survey of the New England fruit tree situation by the New England Crop Reporting Service shows that the State of Massachusetts leads in total number of apple trees in all age groups, while Rhode Island has the smallest number. Data shows that based on the size of their industry, Vermont and New Hampshire have been planting more trees, while Massachusetts and Rhode Island have been planting fewer trees than their neighbors.

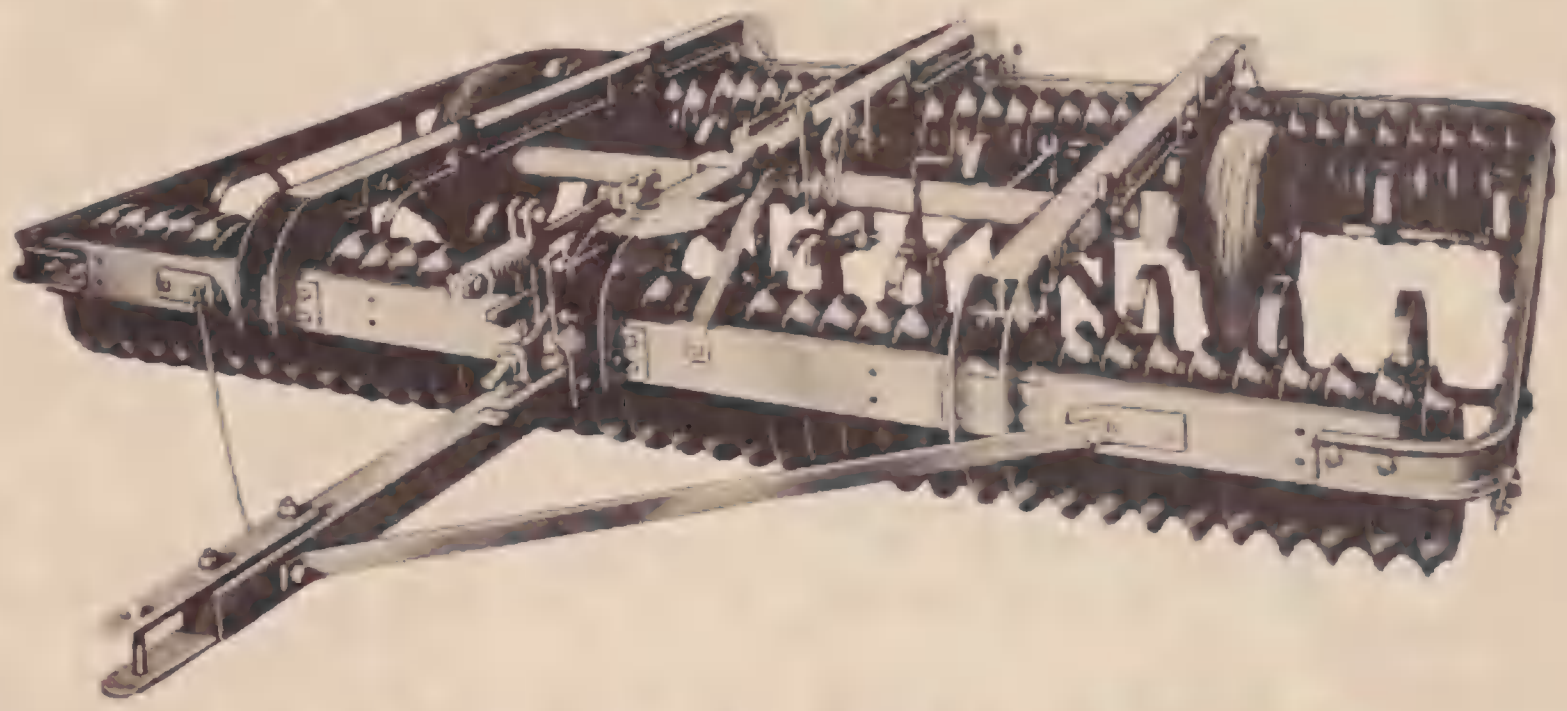
Rhode Island and Massachusetts have a larger proportion of their trees in the older age group, with 68.7 and 61.0 percent in the 22-year and older group. New Hampshire and Maine have 41.3 and 42.0 percent of their trees in this age group; Connecticut and Vermont 45.2 and 45.8 percent.

Since further production of an apple-producing district is dependent upon the numbers of young trees in relation to the total tree population, and on the basis of young trees under 12 years, it would appear that Vermont and New Hampshire can expect an increase in production. Massachusetts and Rhode Island might expect a decrease; Maine and Connecticut should expect to maintain their current production.

Massachusetts will still remain the leading producer of apples in New England for some time because of its greater total tree numbers. However, it appears that a gradual shift in production to Vermont, New Hampshire and Maine will take place in the future.

It's the biggest, the heaviest (5,300 lbs.), it's the ruggedest (heavy-duty "H" beam and 6" high tensile channel). It's the ...

Chattanooga Mulch-Rite



BETTER seed beds mean better crops, and this is what you get with a Chattanooga Mulch-Rite hooked on to your tractor. This big, heavy, modern tillage tool crushes, harrows and conditions the seed beds in one operation, and once over is usually enough.

It is available in three sizes—10′, 13′, 15′; with 15″ or 18″ mulcher pulverizer wheels, made of Nodular iron. The factory will replace, free of charge, any wheels broken under normal working conditions.

For full facts about the Mulch-Rite and other time-saving, labor-saving Chattanooga tillage tools, see your dealer now. Or, fill in the coupon below, slip it into an envelope or paste or scotchtape it to a postcard, and mail it to the factory. We'll send you FREE a fact-full booklet, describing the Mulch-Rite and other modern implements in the big Chattanooga line.



This hitch remains level in either transport or working position.

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Tell me more about the Chattanooga Mulch-Rite and other time-saving, labor-saving Chattanooga tillage tools.

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WATER



is an excellent pipeline cleaner –when you add

Purina Dairy Pipe-Line Cleaner

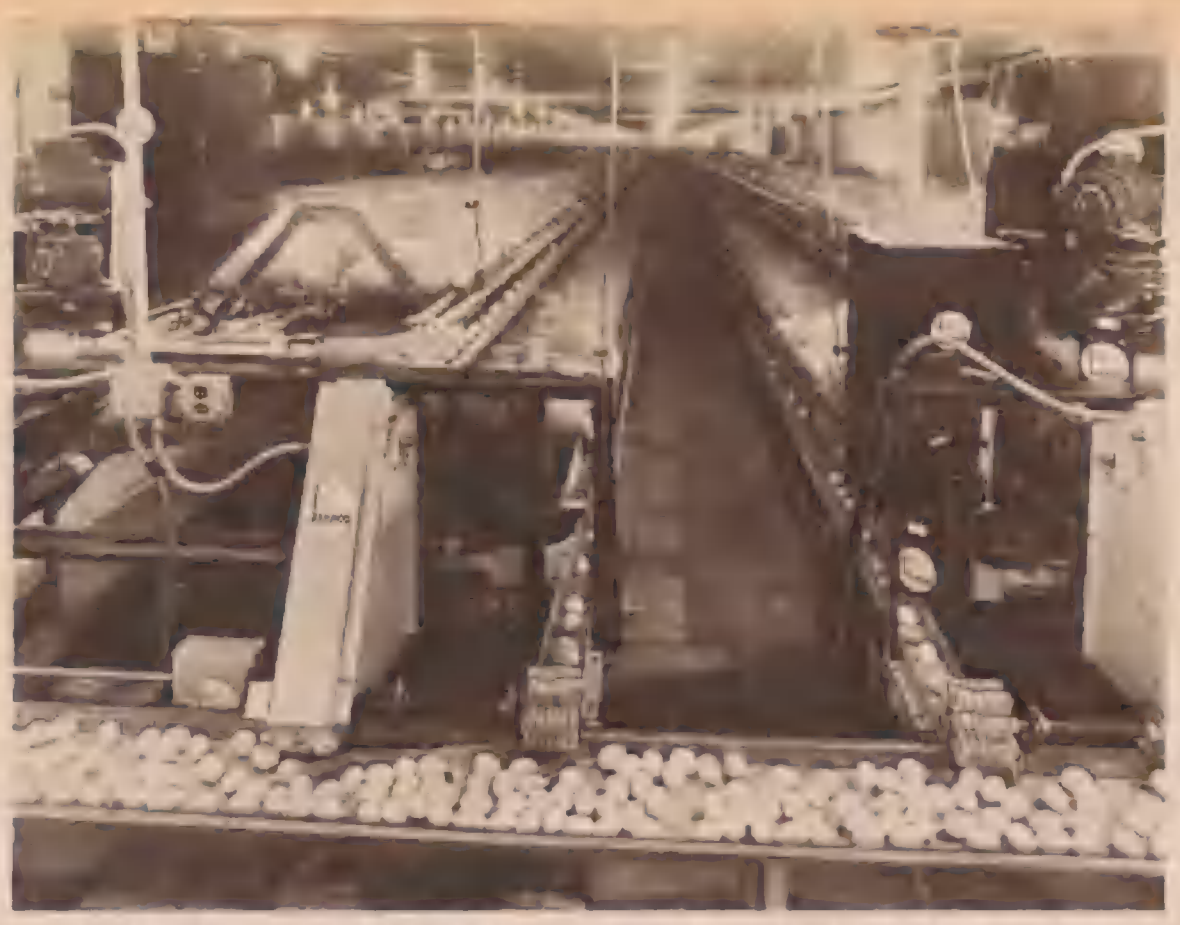
No matter what type of pipeline system you have—you can be sure it's spic and span, clean inside and out when you use Purina Dairy Pipe-Line Cleaner. This powerful concentrate comes alive in water—giving you four products instead of one —a pipeline cleaner—a bulk tank cleaner—a corrosion inhibitor—and a milkstone preventer.

Besides being economical, non-foaming and easy to use, it also eliminates the need for an acid cleaner and leaves no harmful residue to contaminate your milk.

See your Purina dealer for Purina Dairy Pipe-Line Cleaner —it's your answer to a superior job of cleaning and sanitizing —at low cost.

PURINA HEALTH PRODUCTS AT YOUR PURINA DEALER'S

PURINA HEALTH PRODUCTS



A biological assembly line, fully mechanized, at the Glenn Hoffman farm.

SUCCESSFUL POULTRY BUSINESS

by Amos Kirby

Glenn Hoffman, general manager of the Richman Ice Cream Company, Sharptown, New Jersey, is a successful businessman. His ice cream plant with its four restaurants runs smoothly day in and day out.

But Glenn (a graduate of Penn State University in dairy husbandry, and who did graduate work in dairy manufacturing at Maryland University) confesses that he has always had a yen to farm. He has strong convictions that by applying basic business principles to farming it can be a success, so he decided to try it out in poultry.

"No business can justify its existence if it does not show a profit on the investment," he says. And in a year when egg prices were deep in the cellar and abandoned poultry houses dotted the landscape (1967), he has been able to make a profit on his poultry enterprise.

How Was It Done?

Glenn built two egg factories, capacity 57,000 layers . . . and plans are on the drawing boards for another unit to be built in 1968 that will raise the total layers to 87,000.

The setup is completely automated. One man handles the 57,000 birds . . . the only extra help being the wife of the foreman, who works 2 hours daily packing eggs.

Glenn believes pullet costs are too high. In New Jersey they run close to $2.00 per pullet, some 20 to 25 cents higher than in some other areas. Glenn's answer is to buy baby chicks and raise them, thereby lowering costs to a reasonable level.

He doesn't feel that there is any limit to the number of birds that can be cared for under one management. He quoted instances of units already in existence with 2,000,000 to 4,000,000 layers. A group of 250 growers attending a recent poultry conference had a total of over 25,000,000 layers . . . an average of over 100,000 each.

What does concern Glenn is that one day the egg business may be in much the same position as the broiler industry, with feed dealers and chains taking over the production and marketing of eggs.

It is estimated that the cost of building an egg factory runs around $4.85 per bird . . . a 30,000-bird house ready to start production represents an investment of about $150,000. This figure, of course, rises with the addition of extra buildings.

Glenn Hoffman's egg factory is located on his 108-acre farm near Woodstown. On the pasture land he maintains a herd of 40 head of brood cows, and that's where all the poultry manure goes. In 1967 the 40 cows couldn't keep the grass down . . . it had to be mowed four times to stimulate new growth.

The sale of the brood cows, of course, added to the profits, and on another 4-acre plot he maintained 4 riding horses in top condition without any additional grain or supplements.

In any business success comes from seeing problems before they become serious, correcting them immediately, and watching the costs. Glenn Hoffman's setup has aroused enough interest so a steady stream of other poultrymen, industry representatives and others beat a path to his door.



A stream of eggs flows from laying house to packing room.

Photos: Keenco

ADD SKIM MILK

Water sanitizers such as chlorine may inactivate some of the vaccines in the drinking water given by poultrymen, according to Dr. Robert F. Gentry, scientist at The Pennsylvania State University.

Sanitizers were first suspected after blood tests of pullets 20 weeks of age showed that some flocks did not have expected immunity to infectious bronchitis or Newcastle disease. These flocks had received drinking water vaccine when 3 to 16 weeks of age.

The effects of the sanitizers can be controlled by putting skim milk in the drinking water. A commercial packet of skim milk powder, used to make one quart of skim milk, can be added to 10 gallons of water, Dr. Gentry suggests. The powdered skim milk should be mixed with the water before adding the vaccine.

The proteins in the skim milk not only neutralize the sanitizers, but apparently provide significant protection for the live viruses in the vaccines.

PLYWOOD BOOK

"Exterior Plywood in Farm Construction" is a 20-page pamphlet that presents, in easy-to-understand terms, the right grade and thickness of plywood for most kinds of poultry, dairy, swine and grain construction. It also contains an index of farm construction plans available free from the American Plywood Association on individual request.

You can get a copy of the new pamphlet free from Dept. AA, American Plywood Association, 1119 "A" Street, Tacoma, Wash. 98401. Ask for form #63-390 5/67.

LIVESTOCK



Foot trimming being demonstrated at a Beef Cattlemen's Short Course.

BEEF CATTLEMEN'S SHORT COURSE

Breeding, carcass evaluation, marketing, and animal health are a few of the topics that will be given special emphasis at the 17th annual Beef Cattlemen's Short Course scheduled at Cornell University January 22-26. Other subjects to be discussed will include economic outlook, feed production, housing, live animal evaluation, and feeding and management. As usual, the last two days of the course will feature discussions, demonstrations, and practice in getting cattle ready for shows and sales.

Outstanding speakers have been scheduled, including Dr. Ray Woodward, Miles City, Montana, who is director of the Beef Cattle Breeding Program for American Breeders Service, Inc. Anyone interested in beef production is welcome, including the ladies . . . and "out-of-staters." For copies of the program and additional information, get in touch with Prof. M. D. Lacy, Morrison Hall, Cornell University, Ithaca, N.Y. 14850.

Implant – RapiGAIN-1 is a recent beef cattle-finishing implant developed by E. R. Squibb & Sons, Inc. It's designed to stimulate growth and rate of finishing in **both** steers and heifers, is injected into animals with "the fastest gun in the West" . . . an implantation gun also developed by Squibb.

Rhinitis – There are differences of opinion among college experts as to the cause of atrophic rhinitis in pigs. Cornell University, for example, considers it a nutritional disease, but a recent Mississippi State University report says that nutritional deficiencies are not the cause. Work with various levels of calcium and phosphorus at Mississippi State showed no differences in incidence of the disease, even when Ca and P levels were deliberately imbalanced and reduced to 80 percent of National Research Council standards for 50 to 75-pound pigs.

This report agrees with Nebraska research. Feeding of the antibiotic combination, Aureo SP-250, is effective in clearing up rhinitis problems in non-SPF pigs, according to the Cornhusker State report.

Paste Feeding for Pigs – Researchers are experimenting with blending a complete pig feed with sufficient water to ensure wetting of all particles. The resulting paste is moved through pipes, and pigs soon learn to catch the globs of paste. Stopping the movement in the pipe does not cause settling of the particles.

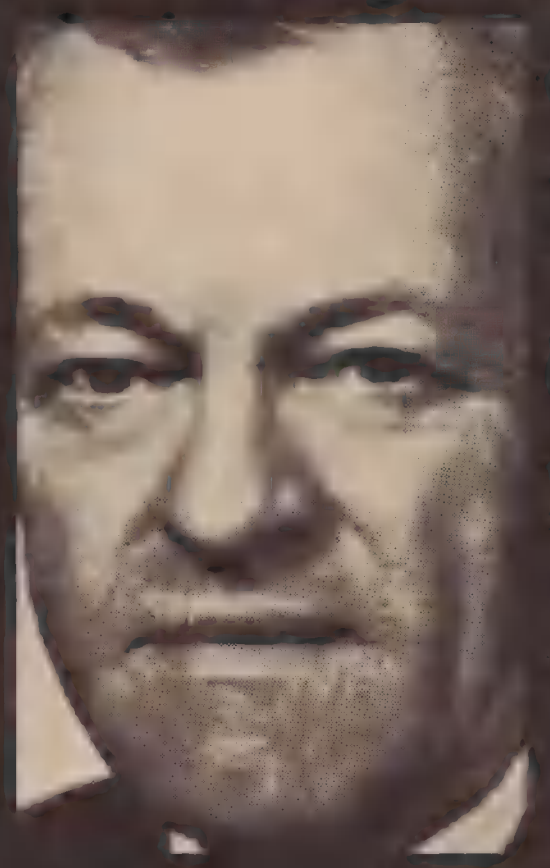
Feeding trials have shown that, up to a weight of 120 pounds, the paste-fed pigs gain weight more rapidly than those fed on dry feed, and at least as well as the others from that to market weight. Carcass quality was good. At present, paste-feeding equipment is not available commercially, and development of better experimental system continues.

New Booklet – A new booklet, **A Complete Guide to Home Meat Curing,** describes the best techniques to properly select, butcher, cure, and season beef, pork, veal, lamb, and large and small game. It describes the equipment and materials needed for each type meat, gives tips for best results, tells how to avoid problems, and suggests recipes for various sausages, scrapple, and others. To obtain the illustrated guide, send check or money order for $1.00 to the Morton Salt Company, Dept. G-3, 110 North Wacker Drive, Chicago, Illinois 60606.

Primer – Qualified livestock raisers will be interested in a primer being offered free by the Roche Chemical Division, entitled "Vitamin E for Farm Animals." Write to Roche Chemical Division, Hoffman-LaRoche Inc., Nutley, N.J. 07110.

Systemic insecticides, when used correctly, kill sucking insect pests, but do not destroy beneficial insect populations.

Your Agway Cropman will be able to discuss 25-tons-per-acre silage on only 85 farms this month. Be sure yours is one.



Lloyd Curtis,
Agway Cropman, Geneva, N. Y.

Agway Cropmen helped Northeast farmers average 25 tons-per-acre in six years of field-scale corn-growing experience.

Northeast farmers did it with an Agway corn-growing program.

How much fertilizer, what weed and insect control, soil pH, population rates, planting and harvesting techniques, measurement methods?

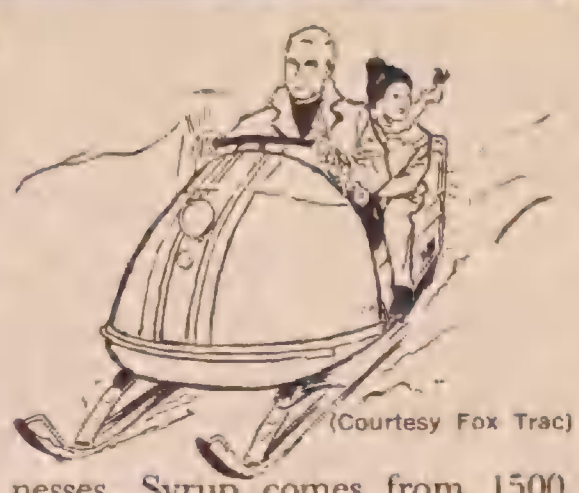
None of the answers to these questions is exactly the same for your farm as for your neighbor's. But out of the results on hundreds of fields, your Agway man extracts the answers that work for *you*. This is *your* Complete Crop Program for corn.

Your Agway Cropman is convinced you can grow 25 tons to the acre of silage, 125 bushels of grain corn, equally profitable yields on other farm crops. Remember, *he's helped do it*, acre after acre, farm after farm. So call for an appointment now. Make sure you're one of the 85 he can get to this month. *Agway Inc.*

Agway

COMPLETE CROP SERVICE
your growing business

JINGLE BELLS


(Courtesy Fox Trac)

Time was when a winter afternoon could be happily spent riding in a cutter behind sprightly-stepping Old Dobbin. The modern version is to take a snowmobile for a spin across the countryside . . . a sport growing by leaps and bounds all over the Northeast.

Jay Mattice, Middleburg (Schoharie County), New York, is in his second year of developing a recreation enterprise supplementing his 30-cow dairy and 2000-gallon maple syrup businesses. Syrup comes from 1500 trees on the Mattice farm, plus 3000 trees on rented property, as well as 10,000 to 20,000 gallons of sap purchased from neighbors.

Dissatisfied with syrup prices when sold by the drum, Jay has developed a small eating place attached to his syrup-making building . . . where maple products can be retailed in containers "to go," as well as on golden-brown flapjacks served on the premises.

Pancake suppers at the Pond Vale Farm begin with the deer hunting season in late November, and continue through the winter and early spring. With the first snow, the snowmobile enthusiasts begin arriving to use the 18 miles of trails (to be expanded to 25 to 30 miles). There's a log cabin equipped with a steel-cone fireplace on the trails to serve as a warming place, and another is being planned.

Snowmobiles come in a range of horsepower . . . going up to 18 at Pond Vale (you can get 'em up to 30 H.P.), but most are in the 10 to 15 H.P. range. Most engines are 2-cycle and air-cooled. Even the smaller ones can move right along, so Jay requires for safety that operators must have either a junior or full-fledged auto driver's license. Each client, by the way, signs a "ride at your risk" statement . . . and the Mattices carry a very hefty liability insurance policy besides.

Rate here for renting snowmobiles (capacity 2 people) is $6 per hour, plus $1 per hour for a cutter (capacity, 2 more people) drawn behind. Snowmobiles are rented out for one season, then sold prior to the next season, and new machines purchased each year. Those who own their own machines can run them on the trails . . . and store them at Pond Vale Farm . . . for a fee.

At present, there's a small pond at the farmstead where folks can skate if they wish . . . and another 8 to 10-acre pond is being built on top of a nearby hill. Since snowmobiles can be converted to water vehicles by adding pontoons and an underwater propeller, there are possibilities for summer recreation. Campsites are being built in the vicinity of the larger pond.

For young and old, "dashing through the snow" is as much fun as ever . . . whether it's a one-horse open sleigh, or a 10-horse open snowbuggy! —*GLC*

There's a newly-formed organization called the American Snowmobile Association, P.O. Box, Columbia Heights 4403, Minneapolis, Minnesota 55421. It puts out a publication called "Snow Sports."

NEW fast-acting GALLIMYCIN®-36

stops infectious mastitis



Highly active against staph and strep infections ...plus 36-hour milkout

Only new GALLIMYCIN-36, of all the many mastitis treatments on the market today, gives you *both* of these essentials for your mastitis control program:

(1) Active effectiveness against stubborn staph and strep infections;

(2) A 36-hour milkout, the shortest approved milkout period.

GALLIMYCIN-36 never sacrifices the high drug-level needed for effective treatment in order to get a short milkout time because, unlike other treatments, *it doesn't have to.* It diffuses fast and thoroughly in the udder . . . killing bacteria and cleaning up infection as it goes. Moves out fast, too . . . doesn't stay in the milk. Rushes its bacteria-killing power right to the source of infection.

The reason: GALLIMYCIN-36 features a totally new drug form against mastitis . . . erythromycin. Against tough *Staph. aureus* bacteria, it's actually more active than the tetracyclines, more active than penicillin. And, GALLIMYCIN-36 is bactericidal . . . kills organisms that cause over 95% of all infectious mastitis, doesn't just slow them down.

So . . . don't settle for less than effective treatment against staph *and* strep infections plus the 36-hour milkout that means up to five extra residue-free milkings for you to sell. Get it all with new GALLIMYCIN-36. Available now from your AMDAL animal health supplier.

Money Back Guarantee — GALLIMYCIN-36 *will work in your herd, the way you need a mastitis treatment to work. AMDAL guarantees it! If, after using it as directed, you are not satisfied, tell us why, return the carton, and your purchase price will be returned in full. You can't lose.*

WARNING: Milk taken from animals during treatment and for 36 hours (3 milkings) after latest treatment must not be used for food.

AMDAL COMPANY AGRICULTURAL DIVISION ABBOTT LABORATORIES • NORTH CHICAGO ILLINOIS • 60064

FASTEST GROWING COMPANY IN THE ANIMAL HEALTH FIELD

GRASS FARM


Henry Eckhart

The milk we produce from 30 milkers (55 head total) is cooled in a can cooler and sold in cans. The milkhouse has been remodeled so it can hold a bulk tank. I am sure that milk cans will be obsolete in 5 to 10 years, but we are only 2½ miles from a plant, and can deliver our milk for a time.

We have no silo and feed hay the year 'round. You could call this a grass farm. When meadows need reseeding (about every 4 years) we plow in the fall and reseed with oats in the spring.

This is essentially a one-man farm, with occasional part-time help. I am supervisor of the town of Masonville, and a director of the Northeast Dairy Cooperative Federation.

I have seen great changes in milk marketing. For one thing, the cooperatives are presenting

(Continued on next page)

a more uniform front at Order hearings, and are fighting each other less. The recent government action to lessen dairy imports will help, but I feel there are still loopholes.

Looking ahead, I feel that the 60-cow dairy may be the average, with fewer and fewer one-man farms. I do not see much future for the thousand-cow dairy in New York State.—*Henry Eckhart, Sidney Center, N.Y.*

SMALL FARM

We have farmed on a small acreage all our lives. I never had the urge to farm in a big way, and I wish a young fellow could start in that way now. However, it is getting tougher and tougher to farm that way.

One thing that helps a small farmer is to sell at retail. For example, we make maple syrup and figure to have it just a little thicker than the law requires. Our customers like it that way.

We grow and sell about 120 turkeys a year. We dry-pick and dress them for Thanksgiving and Christmas. We grow them over a little longer period than most producers, which we think improves the quality of the meat.

We still keep 300 White Leghorn hens and sell the eggs to housewives and one restaurant. The milk from 16 cows is the only thing we sell wholesale.

We pay cash for what we buy. I realize that credit is necessary in order to get started on a modern farm. But I also know the trouble that can come from too much credit.

I'm not advising anyone to follow our example, but I do hope that there will always be a place for the man who prefers a moderate-sized business.

Others may make more money than we do, but at least we have fewer headaches. — *Adam Sullivan, Gouverneur, N.Y.*

HOW I GOT MY NICKNAME

Without half trying, I seem to get myself into the darndest situations; it seems like everything happens to me. Like what happened a few weeks ago that now causes my friends and neighbors to look upon me with wonderment and concern.

So that you may better understand the picture, I must explain that I have six children, and each child owns his or her own bicycle. The bicycles are kept in the garage near the road. On the morning in question I was turning the cows to pasture, and they had left the barnyard and headed up the country road toward the pasture a hundred yards away. The pasture gate is on the right, while directly opposite is a gateway into my meadows where grow several acres of corn and assorted crops.

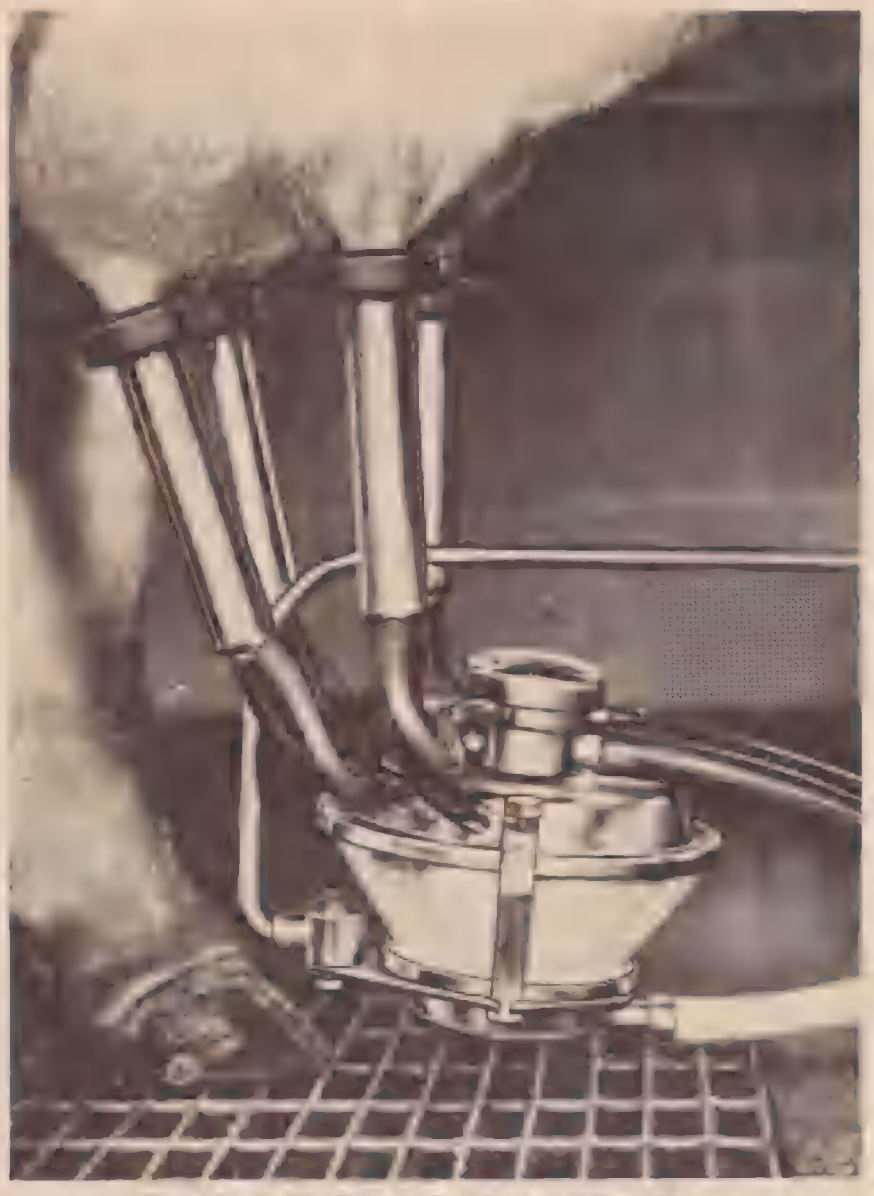
As the cattle wended their way along the road toward the pasture, I suddenly remembered with horror that I had been in the meadow the evening before and was called out suddenly to answer a long distance call and had forgotten to return to close the gate. So fifty hungry beasts were this moment a few short yards from entering the corn field. In a panic, I dashed into the garage, grabbed frantically the nearest bicycle at hand, mounted, and went pedaling at top speed to turn the cows away from the forbidden gate. Only after I was aboard and underway did I realize I was riding a bicycle with training wheels. No matter...it would take me there, and it did. In the nick of time I closed the gate and headed the cows to pasture, breathed a sigh of relief and... well . . . I had this silly bike here, so now I had to return it.

I hopped aboard and started back down the road toward home and breakfast. How that blessed school bus loaded with thirty-odd squealing bug-eyed kids snuck up on me. I'll never know, but suddenly there they were alongside looking at me as if they couldn't believe it. Just picture a fifty-year-old bald-headed man riding a medium-sized bicycle with training wheels. How could I explain to a busload of kids that the cows were about to get into the corn field? I didn't even try, just kept riding toward home. The story traveled like wildfire, and if the neighbors didn't believe the kids, they believed the bus driver, who never was one to keep a secret longer than he had to.

So now the neighborhood kids greet me with, "Hi, Pop, got the hang of the bike yet? He, he, he!" or "Would you like to borrow my little brother's tricycle when he's not using it?" or just "Hi, there, hot rod!" Sometimes I see a neighbor watching me with a peculiar look as if to say, "Poor guy, guess his mind is starting to go."

As I think back, I believe it would have been lots easier to have let the cows into the corn. No one would have given me a second look! At least they wouldn't be calling me "Old man training-wheels." — *Seaman Richmond, Hobart, N.Y.*

Meet the newest concept in good cow milking



Surge Lo-Profile Breaker Cup for the Milking Parlor



Surge Lo-Profile Breaker Cup for the Stanchion Barn

From the people who started the bucket brigade

It's the new Surge Lo-Profile Breaker Cup. It's designed for efficiency: low enough, wide enough, for any cow in your herd. Fast or slow milker . . . heavy or light producer.

Surge Lo-Profile Breaker Cup milking is *safer* milking. Exclusive Tug and Pull action . . . gently downward and forward . . . quickly releases *all* the milk from every quarter with no constriction of the milk ducts.

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In New York State, is it legal for a dairyman to sell milk to his neighbors? If so, under what conditions?

Technically, a farmer who delivers raw milk for sale to a customer is in violation of both the Milk Control Law of this Department and the State Sanitary Code of the Health Department. On the other hand, while I cannot advise anyone to violate the Law or State regulations, I would indicate that this Department at least is not checking very closely on the exact arrangements a farmer may make in selling a small amount of raw milk to a neighbor.

If I were purchasing raw milk from one of my farmer neighbors, I would have a home pasteurizing unit and use it.

The New York Milk Control Law provides, in section 257, that "farmers selling not more than one hundred quarts daily average of milk, or any amount of milk pasteurized on the farm where produced, to customers coming there for it shall be exempt from the license requirements provided by this article." If delivery is undertaken, then they are subject to license.

Authority to sell raw milk depends in part on the location of the farm and the local ordinances of the county health officer. Section 3.5 of the State Sanitary Code says, "the local authorities empowered to enact health ordinances, regulations or codes, may in their discretion enact such ordinances, regulations or codes: (1) to prohibit the sale of any grade of raw milk."

In other words, if there is a county health department, it is empowered to prohibit absolutely the sale of raw milk. Section 3.8 of the State Sanitary Code provides for the sale of raw milk under certain conditions but says, in part, the "milk or cream shall be sold only to consumers only on the premises of the dairy farm on which it was produced . . . in quantities not to exceed six quarts to an individual customer." — *Herbert Kling, Director of Division of Milk Control, Albany, New York*



C. E. Welliver prepares for his pick-'em-yourself customers.

SELF-SERVICE SPUDS

by Ted Fenstermacher

Curtis E. Welliver, Columbia County (Pennsylvania) potato grower, has come up with a way to beat labor costs in potato picking. His customers pick up their own!

There are a number of Columbia County farmers who grow strawberries for pick-them-yourself customers. Welliver figured that if it worked for the strawberry growers it should also work for potato growers. A steady string of customers are proving him right in his assumption.

Welliver had 12 acres of his 80-acre farm in potatoes in 1967 . . . 4½ acres in Red Pontiacs, and 7½ of Katahdins. In August, Welliver ran a two-column by four-inch ad in one weekly and two daily papers. There were sometimes as many as 30 customers at a time at the Welliver farm on each of the picking days . . . listed as Fridays, Saturdays and Sundays. Hours were from 9:30 a.m. to 6:00 p.m. The ad stated: "Bring your own containers. Minimum quantity one bushel."

Welliver provided 20-quart baskets for the actual picking, thereby giving a little bonus . . . although he calls the amount a bushel and charged $1.50 for it. He has found that most people pick all the potatoes as they go along the dug row. The very few exceptions, who take only the largest spuds, aren't invited back!

The farm owner uses a single-row digger and tractor, digging only on the days pickers will be there.

Mom, Pop and the kids make potato-picking a family outing.





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More dairymen are spreading our Barn Calcite — most everybody calls it "non-skid" — on their barn floors and runways because it *really* takes hold . . . keeps their cows on firm footing even in wet weather . . . helps them produce all the milk that's bred into them. Lime Crest Barn Calcite also keeps floors white and clean looking so much longer . . . it's economical, easy to use, and makes better fertilizer, too.

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Jim Clapp has in his left hand one of the "tourniquets" that hold vacuum in part of stack during filling process.

PLASTIC SILO

AT Sunnymead Farms near Hillsdale, New York, the Clapps (Elmer and sons James and Richard), have been experimenting with vacuum-compressed silage. Briefly, this consists of putting silage inside a big plastic bag and then using a vacuum pump to eliminate most of the air and squeeze silage tight . . . reducing the original volume of silage by about 50 percent.

Dick says, "It's a fantastic thing to watch when that vacuum is being pulled . . . seeing the stack shrink." At 15 inches of vacuum, the stack is being squeezed by 1000 pounds per square foot of air pressure! Vacuum pump (list price $359) is rated at 50 cfm at zero vacuum, and operates from the tractor pto.

Bottom of 300-ton "bag" used first was 100×24 feet, and top was 100×40 feet. Clothesline formed periodic "tourniquets" every 10 feet along the length of the stack . . . facilitating the pulling (and holding) of vacuum day by day in the filling and using process. "The vacuum does a better job of packing silage than running a tractor over it would do," says Jim.

Critical period for a really airtight bag is during the first few days after filling. Fermentation is controlled by lowered oxygen so that high temperatures and oxidation don't team up to spoil silage. Carbon dioxide builds up fast during first 24 hours after ensiling; it is removed through a perforated hose running lengthwise of the stack under the plastic cover.

In the fall of '67, the Clapps harvested a whopper corn crop . . . put 1200 tons of silage in two plastic bags, each stack about 90 feet long, 40 feet wide, and 12 feet high at the center. There was corn left over, so they put chopped high-moisture ear corn into two more plastic containers, each one 15 feet wide, 100 feet long, and 5 feet high. They're experimenting with some chopped corn stover placed on top of silage in one of the plastic bags . . . re-pulling a vacuum on the storage space, and planning to use it for heifer feed (or bedding, if it doesn't store well).

So far, these dairymen report good results with this innovation . . . a product of Monsanto, Kenilworth, New Jersey 07033. Maybe there are more plastic bags in the future of dairy farms . . . outside, as well as in the home freezers!

A PASSING ERA

Only the old-timers can remember the 40-gallon milk cans of the earlier 1900's ("backbreakers" they were rightfully called). Now the 10-gallon milk can is moving toward commercial extinction in the Northeast . . . displaced by the gleaming stainless steel bulk tank.

As is the case with so many other items, the milk can is beginning to enjoy classification as Americana. Folks are buying them, cleaning, and painting them for various uses . . . umbrella racks, kitchen stools, and even magazine racks. Acrylic paint is recommended by at least one fancier.



Magazine rack can be made from a milk can.

Photo: Grover Brinkman

You've Heard About ...



Big Ben



Changing of the Guard



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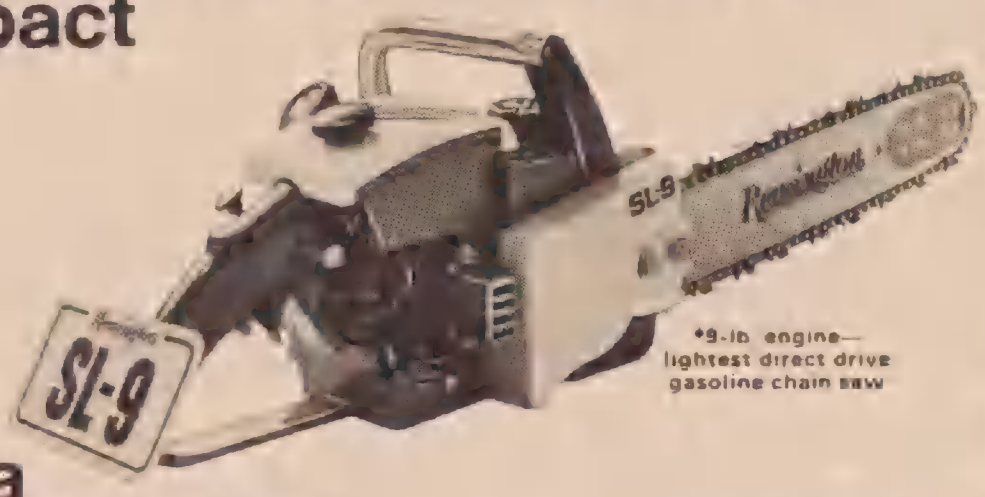
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Remington DUPONT



Carl Schuman splits cord wood outdoors during the fall and spring, then moves into the barn when the weather acts up.

SPLIT 'EM AGAIN!

The side-line at Carl Schuman's Merion Sod Farms, located just north of Detroit, Michigan, is fireplace cord wood . . . split with a mechanical log splitter manufactured by Mackinaw Products Company, 8615 E. Eight Mile Road, Warren, Michigan 48090. He has averaged 650 to 700 cords of wood per year since first acquiring the Mackinaw in 1964 . . . for an average annual gross income potential of $10,000 to $12,000.

Carl has found that "3½ to 4 cords of wood per 8-hour day are about all that can be expected of a hired man using a sledge and wedge. The same man can split two cords an hour with this machine . . . 3 cords if it's all straight-grain maple or birch . . . and he doesn't have to work nearly as hard. It's a lot safer too, since there aren't any heavy impact forces . . . just a smooth 9-ton force that eases the log along a slide and then pushes it against a stationary wedge."

Last year, Carl streamlined his splitting operation even further by replacing his original gasoline-engine-powered Mackinaw with a new one powered by an electric motor. The constant speed of the electric motor compared with the brief load lag of the gasoline engine increased average output from 1¾ cords to a full 2 cords per hour. Elimination of exhaust fumes and engine noise now make it possible to split wood inside the barn on rainy days and during the winter.



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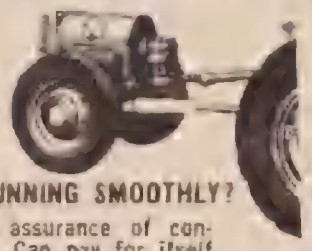
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FORESTRY



Christmas Tree Franchises – About four years ago the Great Lakes Nursery Corporation of Waukesha, Wisconsin, started applying marketing techniques on a national scale to the Christmas tree business. They now have 200 growers on 300 sites, and are continually expanding. The nurseries, dotted around the country, offer the individual in each area the choice of a tree before it is cut, and almost any reputable person with between 15 and 17 acres of land to spare can become a franchisee. The company emphasizes that they do not want absentee landlords; they want people who actually live on the ground and will tend the trees.

Dollars and Sense – How to achieve hardwood timber improvement is the subject of a new service booklet, "Hardwood Dollars and Sense," published by the Fine Hardwoods Association. Among the specific topics covered are: ideal conditions for timber stand improvement; frequency of woodland inspection; the value of a systematic pruning program and its potential for producing high-quality veneer logs; how to eliminate competition from low-value trees, and pacing the improvement process according to available time and facilities.

A concluding chapter offers cost information and gives details of a government cost-sharing program. The booklet is available free of charge up to 10 copies, from the Fine Hardwoods Association, 666 Lake Shore Drive, Chicago, Illinois 60611. For more than 10 copies there is a charge of 10 cents per copy.

Tipburn – Cornell University plant pathologists have found that ozone, a toxic gas in the atmosphere, causes needle blight or tipburn in eastern white pine. It had been thought that the trouble was caused by certain types of fungi, but four years of research showed that the real culprit is ozone.

Ozone is generated naturally in the atmosphere, and identified as one of the most common pollutants from automobile exhaust fumes. High temperature and bright sunlight after wetting appear to enhance the injury.

Here Come the 3 Big New

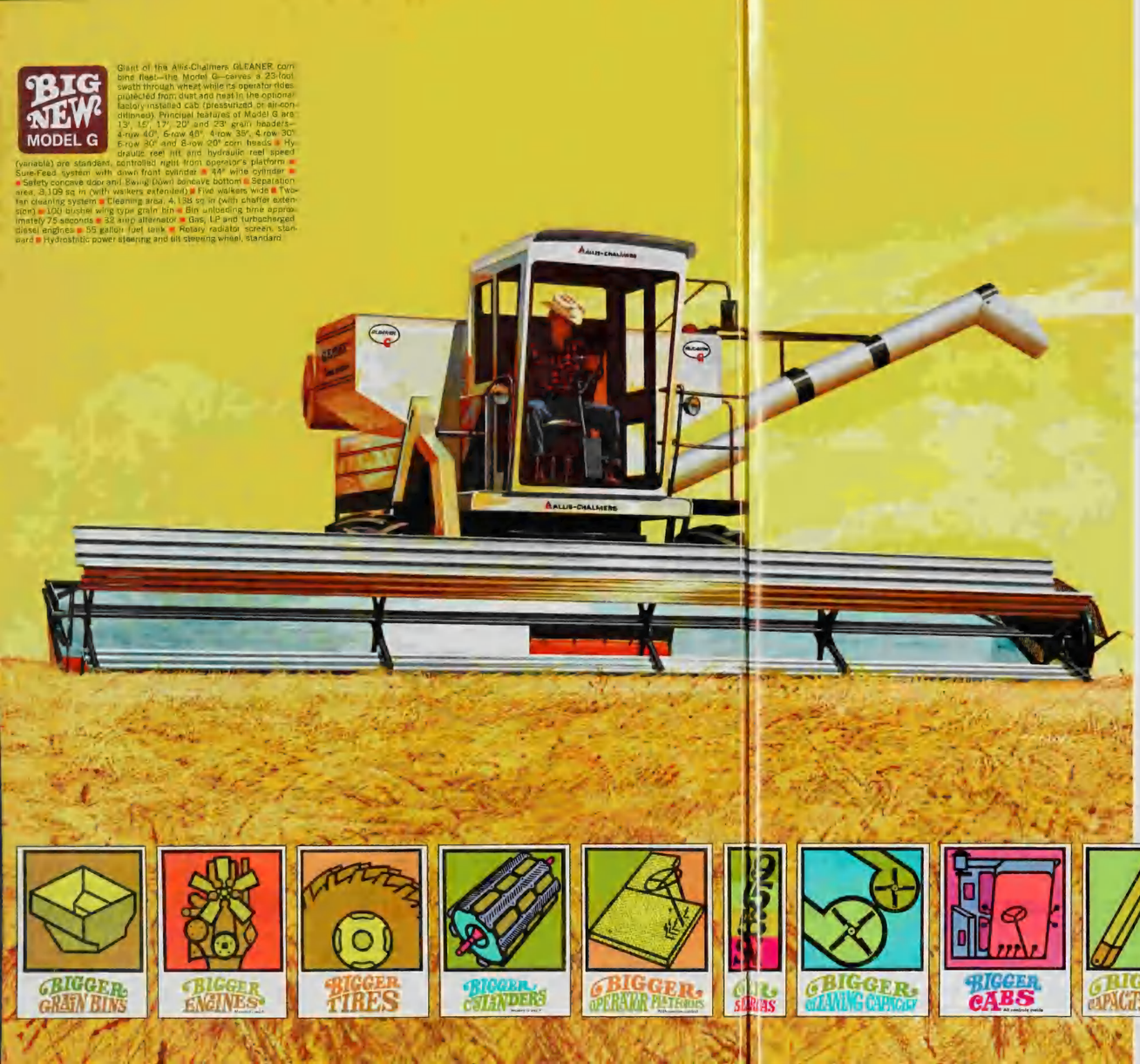
GLEANER COMBINES

from Allis-Chalmers! More than ever—ahead of the crowd!

GLEANER is an Allis-Chalmers trademark

BIG NEW MODEL G

Giant of the Allis-Chalmers GLEANER combine fleet—the Model G—carves a 23-foot swath through wheat while its operator rides protected from dust and heat in the optional factory-installed cab (pressurized or air-conditioned). Principal features of Model G are: 13', 15', 17', 20' and 23' grain headers—4-row 40", 6-row 40", 4-row 35", 4-row 30", 6-row 30" and 8-row 20" corn heads ■ Hydraulic reel lift and hydraulic reel speed (variable) are standard, controlled right from operator's platform ■ Sure-Feed system with down front cylinder ■ 44" wide cylinder ■ Safety concave door and Swing-Down concave bottom ■ Separation area, 3,109 sq in (with walkers extended) ■ Five walkers wide ■ Two-fan cleaning system ■ Cleaning area, 4,138 sq in (with chaffer extension) ■ 100-bushel wing-type grain bin ■ Bin unloading time approximately 75 seconds ■ 32 amp alternator ■ Gas, LP and turbocharged diesel engines ■ 55 gallon fuel tank ■ Rotary radiator screen, standard ■ Hydrostatic power steering and tilt steering wheel, standard



BIG NEW MODEL F

Flagship of the Great Silver Fleet—Model F GLEANER combine moves through a heavy stand of corn with its 6-row 20" corn head. As on all three GLEANER combines, all controls are inside the optional factory-installed cab (pressurized or air-conditioned). The Model F offers: ■ 13', 15', and 17' grain headers—4-row 40", 3-row 40", 4-row 35", 4-row 30" and 6-row 20" corn heads ■ Quick attach headers ■ Sure-Feed system with down-front cylinder ■ 37½" wide cylinder ■ Safety concave door and Swing-Down concave bottom ■ Air-blast separation ■ Bigger separation area, 6,875 sq in (with walkers extended) ■ Four walkers wide ■ Deep, high capacity shoe ■ Two-fan cleaning system ■ Bigger cleaning area, 3,441 sq in (with chaffer extension) ■ Overshot elevator ■ 77 bushel wing-type grain bin ■ 10" unloading auger ■ Bin unloading time, approximately 58 seconds ■ 32 amp alternator ■ Gas, LP and diesel engines ■ 45 gallon fuel tank ■ Big 14.2 sq ft operator's platform.



BIG NEW MODEL E[III]

Here the lively, versatile Model E[III] GLEANER combine harvests soybeans, equipped with 13' header with pick-up reel. Like its high-capacity teammates in the Allis-Chalmers line, the E[III] boasts such GLEANER combine features as: ■ On-the-go cylinder speed control right from operator's platform, standard ■ spacious 14.2 sq ft operator's platform ■ 10', 12', and 13' grain headers—2-row 40", 3-row 30" and 4-row 20" corn heads ■ Quick-attach header change in minutes ■ Sure-Feed system with down-front cylinder ■ Increased separation area, 5,448 sq in (with walkers extended) ■ Three walkers wide ■ Two-fan cleaning system ■ Increased cleaning area, 2,680 sq in (with chaffer extension) ■ Deep, high-capacity shoe ■ Overshot clean grain elevator ■ 66 bushel wing-type grain bin ■ 10" unloading auger ■ Bin unloading time, approx. 68 seconds ■ 32 amp alternator ■ Hydrostatic power steering and tilt steering wheel, optional ■ 32 gallon fuel tank ■ Bigger tires.















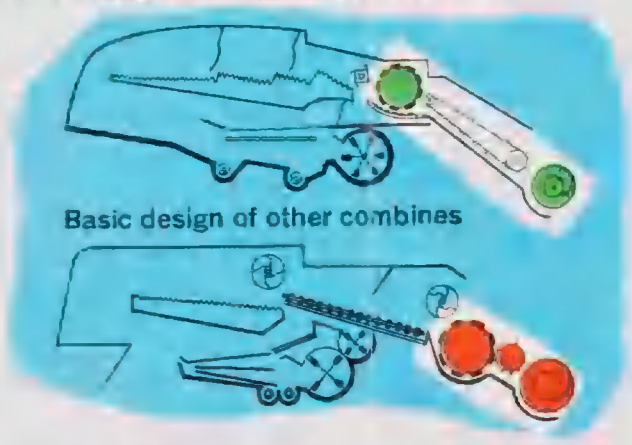






GLEANER combine - bigger differences than ever! More capacity everywhere it touches the crop!

YOU HEAR IT AGAIN AND AGAIN—"That GLEANER combine gets more crop and cleaner crop out of the field than any other." Why? GLEANER combines are different from the ten other makes.



Basic design used only by GLEANER combine

That difference starts right down in front with our *Sure-Feed* system. An exclusive! It controls all crops. Like this—

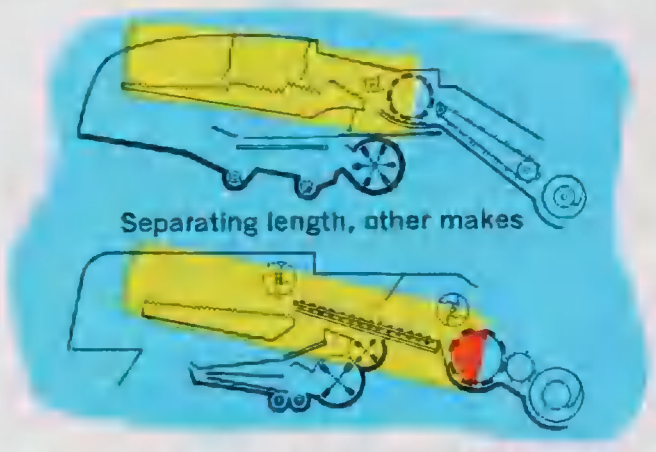
Header auger feeds into a cylinder-width beater. Retractable fingers comb and spread crop over the *entire* cylinder width. GLEANER combines use every inch of rasp bar for full threshing, full capacity morning or afternoon—in heavy or light crops.

Your crop's under full control

Entire action takes only 15½ inches of crop travel—shortest header-to-cylinder delivery of all! Every "cut" is under full mechanical control to within *one inch* of the cylinder. Result—feeding accuracy and threshing capacity unmatched even by the heavyweights.

Also, our down-front design puts the pivot point *behind* the cylinder, so material always feeds at the same angle even while headers move up or down.

All others pivot *ahead* of cylinder—resulting in over- or under-threshing. They have a 50 to 98-inch *conveyor* feed. Any conveyor tends to bunch material at its center, causing uneven cylinder wear.



Greater separating length of GLEANER combine

It's easy to see how GLEANER combine down-front cylinder design gives a much *greater separating* area, more capacity everywhere it touches the crop.

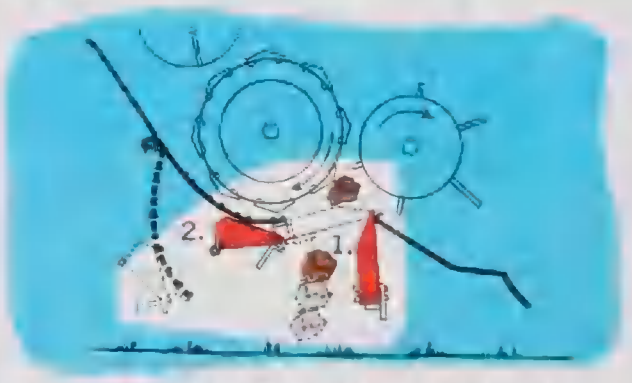
Separation begins as wing beater behind the cylinder agitates, fluffs the crop. Air blast from rotating cylinder and beater increases crop agitation. Grain, dust, chaff fall through the straw evenly onto the raddle below. That's early separation, ready for GLEANER combine pre-cleaning.



Two-fan cleaning, only on GLEANER combine

Here's another difference—*two-fan* cleaning. The others don't pre-clean—they try to do all the cleaning at the shoe. In the GLEANER combine, the upper fan directs a heavy air blast through the grain stream as it comes off the raddle—*pre-cleans* crop before it ever reaches the shoe. Blows dust, dirt out rear.

Second fan *finish-cleans* the crop at the chaffer and shoe. One fan before the shoe, one fan at the shoe; a bigger, cleaner crop with GLEANER combine.



"Swing-Down" concave bottom and safety concave door

Time and money-saving protection are yours with *this* important difference: (1) Safety *concave door* ejects rocks automatically. (2) Swing-Down *concave bottom*, only two bolts to loosen for fast access, easy adjustment.

Sure-Feed system; controlled feeding; down-front cylinder; greater separating area; two-fan cleaning system; money-saving, time-saving protection in an exclusive concave safety system!

These are only *some* of the GLEANER combine *differences*. For more details, lift this flap. Then *see* the Big New Ones at your dealers where Allis-Chalmers credit plans make 'em easier than ever to own!

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MORE NEWS!

53* horses, rarin' to go! C'mon in, try the new One-Seventy at your Allis-Chalmers dealers.

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You can have the same kind of triple hydraulics to handle 3-point hitch, hydrostatic power steering *and* automatic TRACTION BOOSTER—all at the same time, with full response. And things like power-shift rear wheels, roll-shift front axle—the XT ideas go on and on. Your Allis-Chalmers dealer invites you to drop in, eye 'em and try 'em—*soon!*

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Climb on and check out the 63* hp One-Eighty—so easy to own with Allis-Chalmers credit plans.



Perry shaker has two catching frames (note second one in background), an inertia limb shaker (center), and bulk bin (left) filled by cross-conveyor. Air-cooled gasoline engine provides all power via hydraulic hoses.

GIANT SHAKEDOWN

by Gordon Conklin

One golden October day last fall, I visited three Wayne County (N.Y.) fruit farms to see mechanical harvesting . . . at Preston Farms and the DeBadts orchards near Sodus, as well as at the Roger Gates farm near Ontario.

Gaylord Preston had a crew of 5 men running the mechanical harvesting setup . . . two shaking and maneuvering the Perry catching frames, two at the delivery end of the frames, and one moving bulk bins. Greenings were shaking off beautifully, but Romes weren't . . . they needed a hard frost to make them more tractable.

Jay DeBadts, also using a Perry machine, commented that his shaking crew could harvest 17 to 23 trees per hour in blocks with smaller trees. He believes that with the mechanical harvester, and only 10 good men, he can harvest 70,000 to 80,000 bushels of apples. The DeBadts also used the machine, which has a limb shaker rather than trunk shaker, to harvest most of their 340-ton sour cherry crop in 1967.

Different Kind

At the Gates farm, a Gould shaker system was being used. It features a 30-feet-long conveyor into which a "mattress" of equal length delivers. The "mattress" is stretched out under the tree, inflated slightly for a greater cushioning effect, and then rolled toward the conveyor after apples are shaken down.

The shaker is a trunk shaker, and has a much heftier jiggle than the limb shaker (which has to be moved from one major limb to another). Roger Gates pointed out the advantage of being able to use his rig under low-growing trees without cutting off low branches.

All growers agreed that quality of shaken fruit compared favorably with that which is hand-picked. Tests at college experiment stations and processing plants have generally shown that shaken-down fruit is within acceptable quality limits.

Some More

In addition to the three farms mentioned, there are mechanical harvesters in New York State at the Lamont Farms and at Donald Nesbitt's near Albion, Sharp Brothers at North Rose, and Silsby Brothers near Gasport; also at the C. H. Musselman farm near Biglerville, Pennsylvania.



Mattress is rolled up and apples delivered to conveyor that deposits them in bulk bins.



Mattress, in unrolled position, is connected to roller by nylon ropes.

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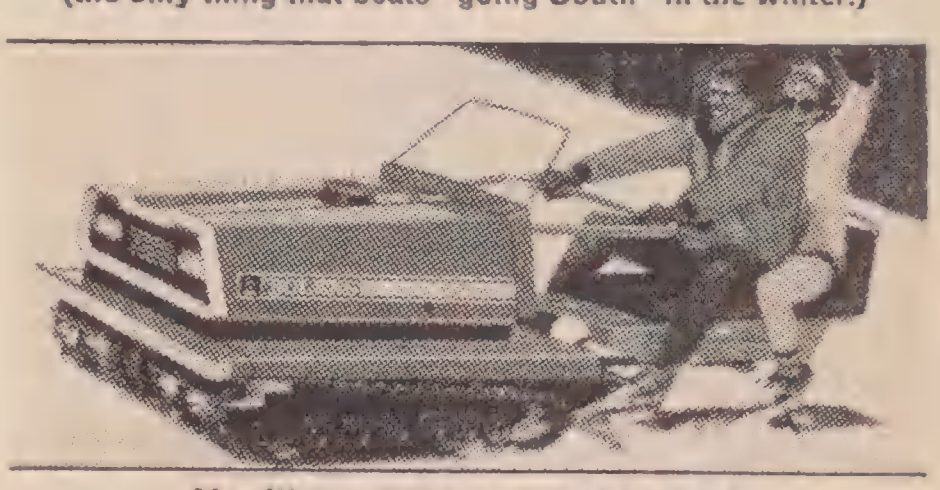
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LOOK TO NORTHEAST

Something's Going Haywire!

Some tractor problems and how to spot them in advance of real trouble.

by Wes Thomas

BY careful watching, listening, and even smelling, you can often obtain clues to developing difficulties in your tractor, truck, or automobile before they become serious. Such early recognition allows you to take prompt corrective action which usually reduces the down time, inconvenience, and cost of the repair as compared to waiting until the difficulty becomes so far advanced that the machine no longer operates.

A-1 **Smell of Diesel Fuel or Gasoline.** This practically always indicates a leak which is costing money, and at the same time endangering the safety of the operator and the equipment.

A-2 **Hydraulic Pump Noise.** This is usually a signal that the pump is not receiving adequate fluid from the reservoir. The cause may be low oil supply, an air leak in the suction line between the reservoir and the pump, or oil that is too heavy for the air temperature in which the tractor is operating.

A-3 **Engine Knock or Ping.** In a diesel engine, this noise often indicates oil being carried over from the air cleaner, injection pump out of time, or low temperature of coolant.

In spark ignition engines, this noise usually indicates that combustion is occuring too early in the cycle. Common causes include: spark timed too early, fuel octane too low, deposits of carbon in the cylinders, cross firing caused by adjacent spark lead wires, or engine overheating.

In either diesel or spark-ignition engines, worn bearing or insufficient oil may be possible causes.

B-1 **Odor of Burning Rubber.** Look for a short circuit in the electrical wiring. If the smell continues but you can't find the short circuit right away, disconnect one of the battery leads from its terminal to avoid further damage to the wiring.

Implements and equipment which mount directly on the tractor may rub against one of the tires. Possible causes here are incorrect mounting of the equipment, oversize tires on the tractor, or overloading of the implement.

B-2 **Whine or Squeal.** Often these types of noises are hard to locate. If the noise persists when forward motion is stopped but the engine is running, possible causes include: Fan belt, water pump, or generator bearings.

There are additional sources of these noises in cars and trucks. For example, if the whine stops when you coast in neutral, the transmission may be the source of the noise. However, if it continues while coasting, the fault may be in the engine or differential.

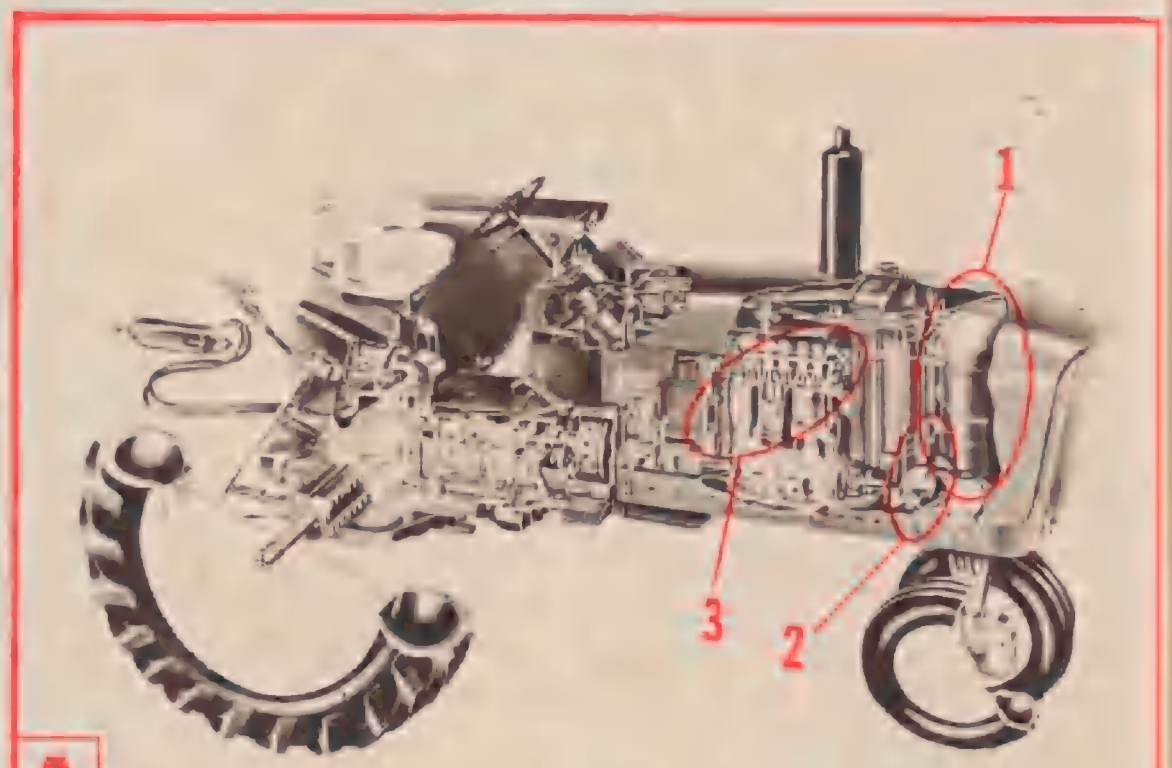
The wheel bearing or fan belt are likely causes if the noise occurs only at higher road speeds. If the tone changes when you apply the brakes, it's probably the wheel bearings.

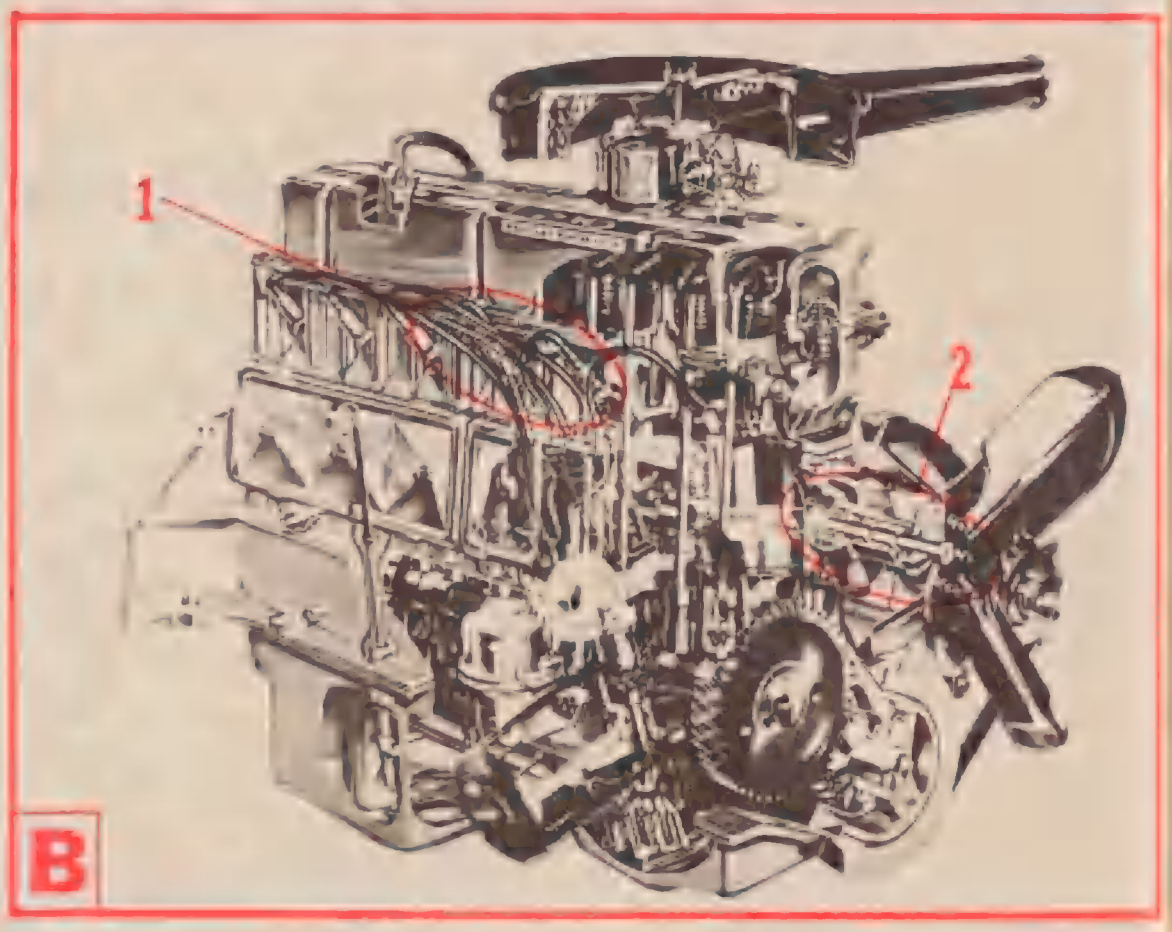
C-1 **Engine Overheating.** First be sure that you are not overloading the engine by using a transmission gear ratio which is too high. Often the load can be reduced enough to restore normal engine temperature simply by shifting to a lower gear.

If overheating persists even with a normal load, here are possible causes: Fan belt loose or worn, liquid too low in the cooling system, thermostat defective, radiator hose clogged or collapsed, trash or chaff build-up which clogs radiator core, radiator cap faulty, fuel octane too low, ignition timing too early in spark ignition engines, improperly adjusted carburetor, thermostat defective, or temperature gauge defective.

C-2 **Whistle or Hum.** This noise usually comes from the radiator cap and is the tip-off to a boiling radiator. Some pressure caps hum like a harmonica, while other caps whistle.

C-3 **Rear Wheel Thump.** If this noise occurs regularly, once every revolution of the rear wheels, the wheel rim is likely loose on the wheel web, especially in the case of power-adjusted rear wheels. Whenever the width-of-tread setting is changed on power-adjusted wheels, the bolts should be checked periodically.







CHEMICAL MILK

by Amos Kirby
New Jersey Editor

CHEMICAL MILK is here. It represents another blow to dairymen from coast to coast. There are dealers in New Jersey who are ready to put it on the market. It appeared in Binghamton, New York, late in November, and one of the big national distributors told me that it might be on many markets in New Jersey and Pennsylvania before Christmas.

EXPERIENCED WORKERS

The wage increase paid to farm workers in 1967 has paid off in two ways, according to recent surveys.

(1) The higher wage rate of $1.25 an hour (up from $1.15 in 1966) brought in more workers. From official sources (and confirmed by growers) there was no shortage of workers in 1967.

(2) The higher wage brought in workers from Puerto Rico who have been absent from New Jersey for a number of years. These experienced workers performed better, and did not require the training necessary with men here for the first time.

The experience this year proves that even on a farm trained workers are less expensive than those who have never seen an apple tree or dug nursery stock.

INCREASED YIELDS

Asparagus growers may have a 25 percent increase in yields, so reports the New Jersey Asparagus Industry Council. The increase will come from using seed from the improved strains developed and tested by the New Jersey Experiment Station—College of Agriculture research, in cooperation with the Council.

In recent years average yields have been about 2200 to 2400 pounds per acre of marketable asparagus. A 25 percent gain could bring the industry up to 3000 pounds per acre.

RODENT CONTROL

There is no rest for fruit growers in the control of orchard pests. Some pests may be sleeping these long winter days, but not the pine and meadow mice. To most, a mouse is a mouse . . . but to the fruit grower the pine and the meadow mice do their damage when the trees are dormant. The College of Agriculture suggests different baits for each type:

Meadow Mice — Broadcast zinc phosphide, treated steamed crushed oats, or cracked corn at the rate of 10 pounds per acre. Treat fence rows and ditches as well. Apply when grass is dry so that bait will filter down to the soil.

Pine Mice — A bit more particular. The meadow mouse bait will probably provide up to 50 percent control. For pine mice treat one side of the tree with poisoned oats and the other side with poisoned apple slices. Use firm apples, sliced down to 100 pieces per quart, using one level teaspoonful of zinc phosphide per one quart of apple slices, coating the pieces thoroughly.

On young trees where rabbits and mice are a problem, encasing the trunk with aluminum foil or ¼-inch mesh wire will be helpful. The guards should be at least 6 inches in diameter and 18 inches high.

Chemical repellants — One may paint the trunks with either ZIP or Arasan 42-S.

How to distinguish a pine from a meadow mouse? The tail of the pine mouse is about the same length as the hind leg. The tail of the meadow mouse is about twice the length of its hind leg. We forgot to ask how long is the hind leg!

COW BARNS

Thinking of building a new barn? Before drawing the plans take a look at the new barn being erected at the College of Agriculture at New Brunswick. Old Bossy might not exactly like what she first sees, but when she has examined what the barn of the 70's is going to be like, she will agree that here is something worth a second look.

The dairy barn of tomorrow will look like a giant circus tent with the silo in the center. This is not all . . . there will be wedge-shaped free stalls for everyone, temperature control, a 24-hour snack bar with food and drink always on tap.

For the man who operates this affluent housing, there will be labor-saving devices that might rank with a modern kitchen. From a 40-foot silo in the center a switch is pushed and out flows the silage like opening a faucet. With the stalls facing towards the center of the building, tasks have been minimized, efficiency increased, and everything made possible for "contented cows on every farm."

Mark E. Singley, agricultural engineer at the College, is the originator of this new concept in dairy barn management. Working in cooperation with Paul Mazur of Fiddler's Creek Farm, Titusville (where Rutgers has been studying self-feeder silo design for 20 years) Mark put these and other ideas in one package, on which construction is soon to start.



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NYS FARM BUREAU

DELEGATES at the last annual meeting of the New York Farm Bureau approved the following policies:

– Called for increased support of milk promotion programs, and supported the positive letter approach to financing such an expanded program. At first going on record as favoring a system of mandatory contributions, delegates later reversed themselves in favor of voluntary compliance.

—Other dairy resolutions called for up-dating milk pricing formulae in Federal Order 2 and state orders, amending laws to permit greater flexibility in dairy product development, and prohibiting misleading advertising of nondairy products.

—Labor resolutions asked fewer restrictions on the employment of minors, minimum wages under state law no higher than under federal law, and no mandatory unemployment insurance by agricultural employers. It was urged that agriculture be represented on the Workmen's Compensation Board, and that double indemnity awards for illegally employed minors be replaced by a fine assessed in a court of law.

– Some additional sales tax exemptions were requested on items and labor connected with farm production.

– Supported study of a plan whereby farmers who believe their property is overassessed may apply to State Board of Equalization and Assessment for an advisory assessment that may be used by taxpayer to obtain equitable treatment in the courts.

– Asked for passage of law exempting capital improvements to farm real estate from taxation for 5 years.

—Supported independent agency attached to Department of Agriculture and Markets to be agriculture's voice in planning.

– Further improvement in eminent domain procedures were called for, as were better methods for wildlife control.

– The continuance of the hunter back-patch was recommended, and the snowmobile was nominated for addition to a law largely exempting a property owner from liability for people hunting, fishing, trapping, or training dogs on his property.

– Opposed transfer of Barge Canal or Adirondack area to federal control.

– Other resolutions called for more realistic welfare programs, a tightening up of Medicaid eligibility, and prohibition of partially-filled containers of any alcoholic beverage in any motor vehicle on a highway except in the trunk. Also favoring present State egg weight standards, and the Golden Nematode control program on Long Island.

HORT SHOW

The New York Horticultural Society will have winter meetings at Rochester on January 23, 24 and 25 . . . at Kingston January 30, 31, and February 1. The Rochester meeting is joint with the Empire State Potato Club and the New York State Vegetable Growers Association.

Here are highlights of the Rochester meeting:

January 23—A.M.—Grower and processor experience with mechanical harvesting of apples and cherries. P.M.—Speeches by Earl Butz, Purdue; Ed Smith, Cornell; F. F. Hill, Ford Foundation.

January 24—A.M.—Fruit marketing (Max Brunk, Cornell; George Mehrens, USDA; Howard Baber, grower).

P.M.—Speeches by Ed Fallon, Agway; Russell Billings, Commission on Preservation of Agricultural Land; Carl Davis, Jewel Tea Company.

Evening Banquet.

January 25—A.M.—McIntosh apples for processing . . . spacing and rootstocks . . . spray materials to loosen fruit . . . selling more pears.

P.M.—Labor for fruit growers in years ahead.

HONORED

Edward S. Foster was honored



Ed Foster

at the last meeting of the New York State Conference Board of Farm Organizations for outstanding service to the organization and to rural people.

Ed became Secretary of the Conference Board in 1930, and represented the organization at Albany. The Conference Board now includes 11 farm organizations in the Empire State.

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4-H NATIONAL WINNERS

These young people from New Jersey, New York, and Pennsylvania received national awards at the recent 4-H Club Congress at Chicago. Donors of awards included: Coats & Clark Inc., The Sears-Roebuck Foundation, John Deere, American Forest Products Industries, Inc., The S & H Foundation, Inc., The Firestone Tire & Rubber Company, Ralston Purina Company, Westinghouse Electric Company, Hercules Incorporated, Amchem Products, Inc., General Foods Corporation, Allis-Chalmers, Wilson & Co., Inc., Moorman Manufacturing Company, American Oil Foundation, The Ford Motor Company, Tupperware, Homelite (a Division of Textron).

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Milltown, N.J.



Patricia Clark
Mercer Co.
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PENNSYLVANIA



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Passaic Co.
Wayne, N.J.



Kathy Gatars
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East Brunswick, N.J.



Janine Phillips
Berks Co.
Leesport, Pa.



Susan Procter
Sullivan Co.
Muncy Valley, Pa.



James Rohrbaugh
Adams Co.
Littlestown, Pa.



Constance Frazier
Sullivan Co.
Muncy Valley, Pa.



Dean Warburton
Sullivan Co.
New Albany, Pa.



Thomas Fabin
Indiana Co.
Indiana, Pa.

NEW YORK



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Wyoming Co.
Warsaw, N.Y.



Sue Kieffer
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East Aurora, N.Y.



Roberta Freeman
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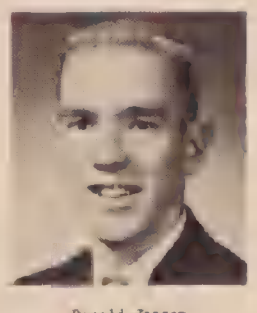
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Greenwich, Lewis G. Collins
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Newfield, Rudolf Mazourek
Oxford, Ives Equipment Co.
Piffard, C. A. Parnell
St. Johnsville, Valley Equipment Co.
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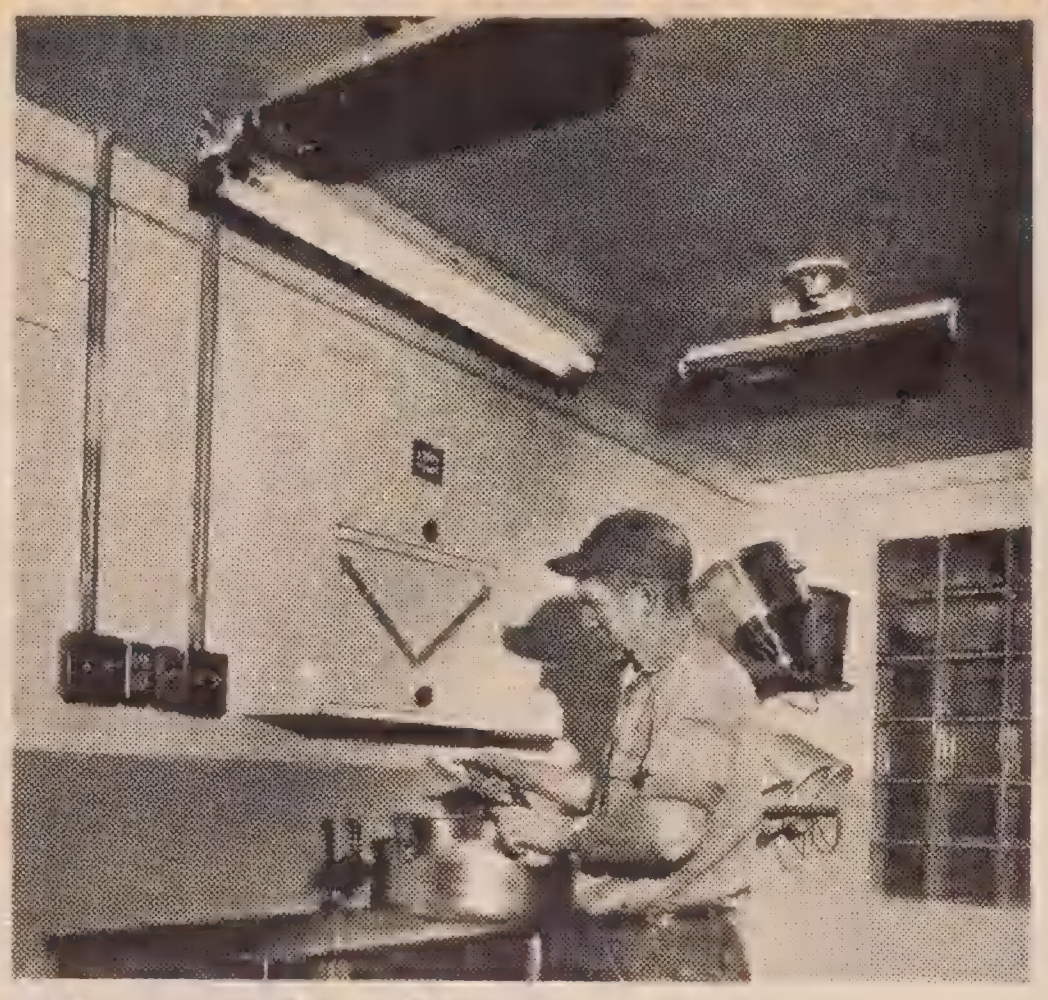
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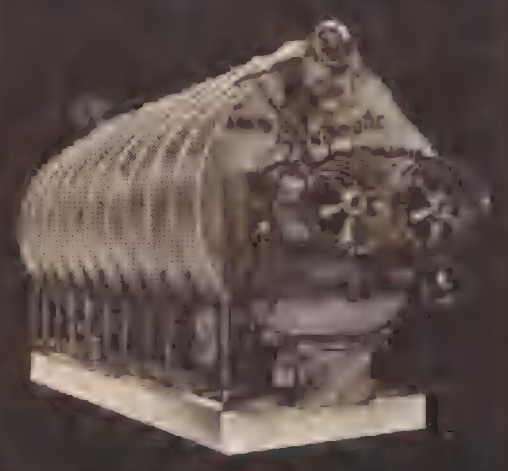
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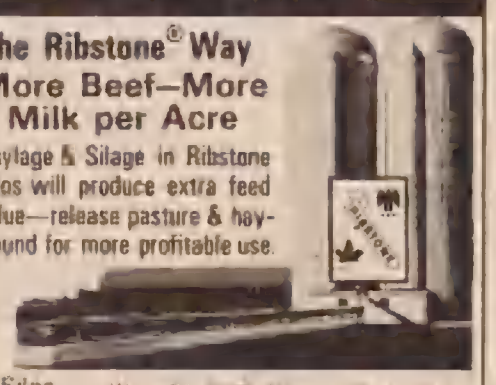
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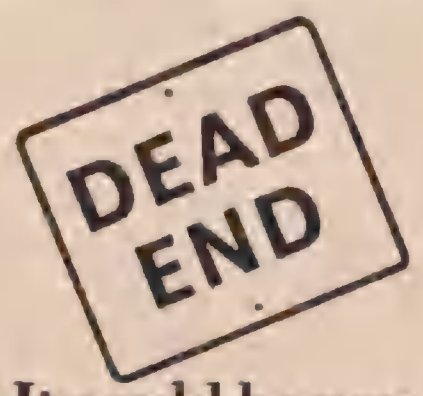
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NOT BY BREAD ALONE

I was born to live with the land, and I am not now satisfied to accept anything less. I look in our modern farm papers to find what . . . an array of machines which makes it possible for one man to double, perhaps triple his capacity to produce. I see accounts of super-producers . . . men who have outstripped all their neighbors in mastering these mechanical monstrosities.

There is no mention any more of the flowing countryside, the beautiful green hills, the skies of a winter sunset, the wonder of a spring morning, nor the sweetness of a summer afternoon with its cooling shades and gentle breezes.

What have we done to ourselves in the name of progress? An ignoble greed seems to have taken over, and the true goodness of living has been replaced by a mad scramble for some shadowy substance called success. If this is all we have to offer our youth, no wonder they are rebelling. Another generation and the poetry of life . . . the things which make it all worthwhile will have been wiped out completely. Our personalities will have become twisted and enmeshed in the machines with which we will have chosen to ally our destinies.

Surely you who are organized to reach the ear of the American farmer can find a richer and deeper meaning to life in the country than this boisterous display of mercenary objective. I vow there is a need for something better . . . something which will quicken the heart and lift the spirit. There is more than one path through this world, and the one we are now on has too many shadows for humanity to withstand. — *Edwin R. Rice, Randolph, New York*

STAR FARMER

David J. Mosher, who at age 19 has almost complete responsibility for operating a 218-acre dairy farm in Greenwich, New York, was named 1967 Star Farmer of America. Asked what he would do with his $1000 prize, Mosher said he would "put it right back into stock."

From an original herd of three cows, one heifer, and two calves, David has expanded his livestock holdings into a prize-winning herd of 37 Holstein-Friesian cows and 29 calves and heifers. He is considered "superior as a judge of cattle, a breeder, a feeder and manager."

Congratulations, David!

January 20 - Annual Winter Meeting of N.Y.S. Christmas Tree Growers' Association, Holiday Inn on Route 15 south of Rochester, near Thruway Exit 46 (begins 10 a.m.)

DAM WHITE ELEPHANTS

IN OUR December issue, under the heading "The Lengthening Shadow," we ran a story on the proposed dam at Portageville, New York. Here's what Congressman Barber B. Conable, Jr., (in whose district the dam would be) has to say about the proposal:

"The Portageville Dam, suggested by a coordinating committee of federal and state agencies after a five-year study of the Genesee River Basin, would be the largest public works project our congressional district has ever undertaken. I personally think it would be a monument to folly, at least on the basis of the arguments adduced for it to date.

No Flood Control

"Upstream from the Mt. Morris Dam (which has never been full), the dam would therefore have no flood control value. To generate significant amounts of peaking power, water from the Mt. Morris Dam Pool would have to be pumped during night hours back to the Portageville Dam, then released through turbines as needed during the peak demand hours of the day. Electric distributors in our area say they don't want this power.

"The tubes connecting the two dams to permit all this interchange of water, if not an eyesore in the Letchworth gorge, would certainly be expensive to install. Portageville and much valuable agricultural land to the south would be flooded by a lake whose surface would go up and down enough to expose unattractive mud flats, particularly in Allegany County.

Undeveloped Land

"If the dam were built, a good deal of recreational land could be developed adjoining Letchworth Park, but that beautiful park itself has not yet been developed to its full potential, and both Wyoming and Allegany Counties already have substantial tracts of undeveloped recreational land in addition to Letchworth. The cost would be at least $100 million, and who knows what it would cost by the time approval could be won in a fiscally-pressed Congress?

"Other parts of the joint study are possibilities, but I can find nothing desirable about the Portageville Dam. At least, in my constant worry about getting first things first in our national priorities, I have had little difficulty in putting this project in last place."

Granite State

Up at Claremont, New Hampshire, a similar project is stirring up a considerable head of steam. Here's part of what a recent Sullivan County Conservation District "Newsletter" had to say on the subject:

"We do not believe that Claremont can afford to irrevocably commit nearly 1/6 of its total land area, including about 980 acres of Class I and II agricultural land, to a project which will forever preclude any residential, agricultural or industrial development. This would deny Claremont the potential increase in its tax base that the private development of this area would bring.

"We also feel that the recreational aspect of this project has been greatly oversold. In the first place, this would be a State Park-type facility, owned by the Federal Government and operated by the State of New Hampshire. It would prohibit any private landownership or development within the project area. There would be no cottages on the lake.

"We also question the predicted usage of the recreation facility. The Corps figure of 250,000 per year the first year would mean that 700 people would have to visit this area every day of the year. Attendance figures at Sunapee State Park make this seem highly unlikely."



HANDY GATE

Here's an "overhead gate" that has worked well on the Robert Titus dairy farm near Deposit, New York. It's built on two-inch pipes that slide on fixed 1¼-inch pipes. Counterbalanced with weights, it easily raises out of the way in the free-stall barn attached to the existing conventional stable. A small bolt slides into holes drilled through both pipes to lock gate in either "up" or "down" position.



It's explainable but complicated, why this revolutionary concept for mastitis* prevention fights so many different types of *Staph. aureus* organisms. Dairymen all over America report that it works.

Somato-Staph is a somatic antigen (bacterin) that is more readily available to the cow and many times more effective than staph toxoids, staph strep bacterins and staph antitoxins in producing rapid, high level antibody protection . . . plus continuing resistance with 6-month booster shots. (Universities rate *Staph. aureus* as the main trouble makers in 60% of all infectious mastitis cases.)

TRY ANCHOR'S WHOLE HERD SOMATO-STAPH PREVENTION PROGRAM

1. Inject 5cc intramuscularly
2. Repeat in 14 days
3. Booster shot at 5-6 months
4. Vaccinate heifers at 6 months
5. Cows may be vaccinated anytime including lactation period. No withholding of milk.

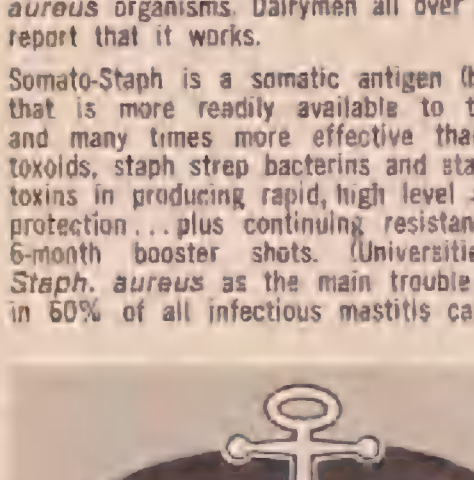
*We emphasize that Somato-Staph was produced as a preventive and not as a cure.

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INDIANAPOLIS, IND., P.O. Box 1177



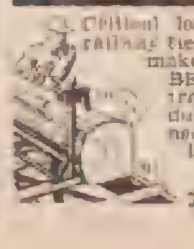
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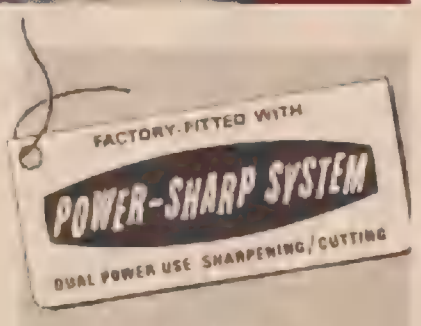
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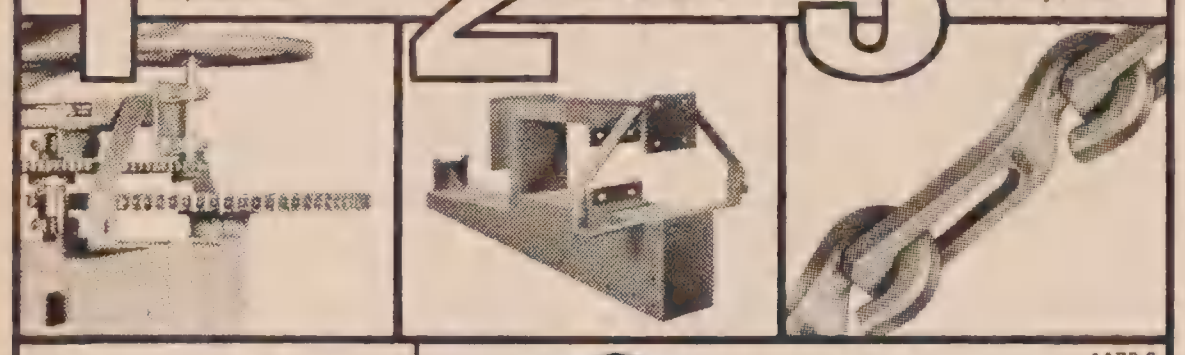
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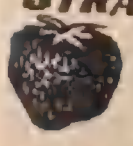
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Food For The Spirit



by Robert Clingan

ACCEPTANCE OF TIME

Not long ago a person came to me for counsel. He expressed a deep concern that he had not made the immediate recovery for which he had hoped following intensive care in a hospital for persons mentally and emotionally disturbed.

Somehow he had expected to walk out of the hospital perfectly normal, completely well, and fully healed. To his dismay and deep disappointment, he found that this was not the case; he still had much to do and a long road yet to travel.

Out of my experience as a pastor I could give him the assurance that he was moving in the right direction, that he should have confidence in the doctors who believed he was on the road to recovery, and, judging by the experience of people I knew, in time he could recover what he described and sought as a "normal" existence.

But this did not satisfy him at all. He wanted immediate cure and instant relief. He wanted tensions and problems that had been years in the making to disappear overnight, or at least in a few weeks of intensive treatment. He was unwilling to wait for time or allow time its own ministry.

At this point he tried to find some answer in moral spiritual failure. Had he failed God, and therefore in his hour of need God had failed him? Or perhaps he had the wrong kind of religion. Maybe he needed to engage the personal services of one of the "faith healers" of national television fame? His kind of religion had not cured him . . . perhaps their's would.

This person had failed to recognize that all healing takes time. Following any major illness, including surgery, there must always be a period of convalescence. For these people the road is seldom easy, and quite often the recovery is not as rapid as they had hoped. They may even discover to their dismay that the line of healing is often not all straight but curved with ups and downs . . . with the general trend in the right direction. Occasionally more treatment is needed, or a different treatment is required than that thought necessary by the diagnostician.

Why should we expect an entirely different experience when our illness is mental and emotional? Families and patients ought not to expect too much too soon, and they should be willing to give time a chance to do its work, to give the healing processes time to accomplish their effect.

If they fail to experience immediate recovery, has faith let these people down, any of them? No, that is not the essential work of faith for most people. For most people who find strength in their faith it becomes for them a source of courage and patience so that they are able to endure what is required, even as they move from affliction and illness to wholeness and recovery.

Faith says: "Let God do it His way. Let Him take the time the healing ministries of His spirit require, or the healing processes He has built into our bodies need. To demand instant cure is to insist that God do it our way, rather than His. It is to refuse to pray the prayer of our Lord: "Not my will but Thine be done." In other words, the acceptance of time is a measure of faith.

Dates to Remember

January 8-10 - Annual Meeting New Jersey State Horticultural Society and Vegetable Growers of New Jersey, Ivystone Inn, Pennsauken, N.J. on Route U.S. 130.

Jan. 10 - New York State Agricultural Society 135th annual meeting, DeWitt Clinton Hotel, Albany, N.Y.

Jan. 10-11 - New England Fruit Meetings and Trade Show, New Hampshire Highway Hotel, Concord, N.H.

Jan. 13 - New York State Beef Cattlemen's Association meeting, Trenholm East Hotel, Canandaigua, N.Y.

Jan. 15-19 - Pennsylvania Farm Show, Farm Show Building, Pennsylvania, N.Y.

Jan. 17-18 - Dairy Farmers' Seminar, University of Massachusetts, Amherst, Mass.

Jan. 22-26 - Beef Cattlemen's Short Course, Cornell University, Ithaca, N.Y.

Jan. 22-27 - New Jersey Farmers' Week, Trenton, N.J.

Jan. 22-26 - 100th anniversary meeting Empire State Honey Producers and annual meeting of American Beekeepers Association, Parkway Motel and Convention Center, Niagara Falls, N.Y.

Jan. 23-25 - Annual meetings New York State Horticultural Society, New York Vegetable Growers Association, and Empire State Potato Club, Manger Hotel, Rochester, N.Y.

Jan. 23-25 - Vermont Farm Show, Municipal Auditorium, Barre, Vermont.

Jan. 24 - Vermont Sheep Breeders' Association annual meeting, Main Auditorium Annex, Vermont Farm Show, Burlington, Vt.

Jan. 24 - Vermont Beef Producers annual meeting, Cow Palace, Vermont Farm Show, Burlington, Vt.

Jan. 29-31 - New York State Holstein Annual Meeting, Saratoga Springs, N.Y.

Jan. 30-Feb. 1 - New York State Horticultural Society annual Eastern meeting, Governor Clinton Hotel, Kingston, N.Y.

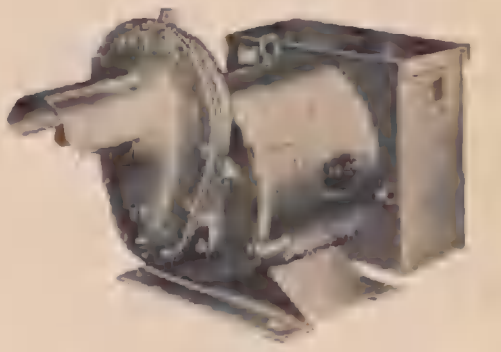
Jan. 31 - New England Grain and Feed Council Seminar Banquet, Sheraton Hotel, Boston, Mass.

Feb. 1-2 - University of New Hampshire Poultry Health Conference, Durham, N.H.

Feb. 4-7 - State Horticultural Association of Pennsylvania annual meeting, Yorktowne Hotel, York, Pa.

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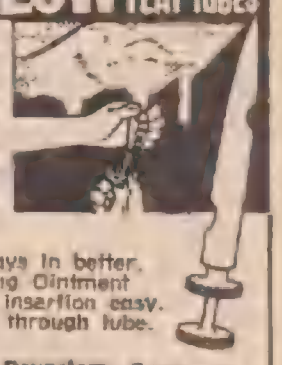


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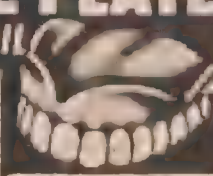
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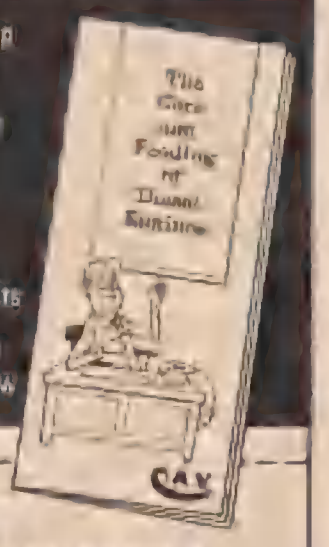
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FARM DOLLAR GUIDE

FORECAST for farm income in '68 includes: Higher prices for farm products. Livestock may show more gains in first half of year, crops in second half. Higher costs of farm supplies. Costing more will be most equipment, livestock feed, fertilizer, labor, interest on borrowed money. Slight increase in U.S. net farm income estimated ($14.8 billion in '67; $15 billion in '68).

Prices of farm land will continue up. Rate of inflation will probably increase. Summing up: while net income may be up slightly, it's a time to be conservative while watching crop reports and weather, and buying and selling carefully.

PARTICIPATION IN 1968 FEED GRAIN PROGRAM requires that you divert 20 percent of your feed grain base acreage (corn and grain sorghum) to soil conserving use in addition to your base acreage as assigned. You can divert up to 50 percent of your base, or 25 acres, whichever is larger. Payment rate on corn is expected to be $47 to $48 per acre diverted (national average). Sign-up (also for wheat) will be in February and March.

MILK PROMOTION RESEARCH information is available from Division of Information, Office of Management Services, USDA, Washington, D.C. 20250. Ask for MRR 805, entitled "Consumer Response to Various Levels of Advertising for Fluid Milk." Single copies free.

USDA has announced purchase of old hens to help egg market. It would help if all poultrymen would cull a little more than normal. Hens bought will be used in school lunch programs. First purchase was November 28, and weekly thereafter until further notice.

Defense Department is going to buy butter instead of oleo for the troops, we hear, maybe to the amount of 40 million pounds.

VERMONT FARMERS who have hired help should consult their local insurance agents concerning protection against the accident claims of their employees. The 1967 Vermont Legislature has amended the Workmen's Compensation Law so that many farmers who previously had coverage are no longer protected.

ELFAC (Electronic Farm Accounting) goes "all computer" on January 1, 1968. Designed as a management tool for farmers, ELFAC offers three reports a month to participants...operating statement, financial summary, cash summary, and accuracy control check. It's sponsored by the Extension Service in the northeastern states.

PEOPLE 65 AND OVER who failed to sign up for Part B of medicare (the insurance covering doctors' bills) now have another opportunity to do so. Anyone wishing to enroll should apply at his local social security office up through March, 1968. Coverage will start July 1, 1968.

People just reaching 65, of course, can sign up at any time three months before their 65th birthdays.

BLOAT PREVENTION record of chemical called poloxalene has been good. It's available in several forms, including a molasses-sweetened block similar in shape to salt block.

FARM FEED PROCESSING WITH PORTABLE GRINDER-MIXERS is title of new booklet authored by Dale O. Hull, Extension agricultural engineer at Iowa State University. The booklet is prepared for livestock producers who want latest information on how to do their own feed-mixing on the farm. A free copy can be obtained by writing to Gehl Company, West Bend, Wisconsin 53095.

NEW MITICIDE for control of European red mite and two-spotted mite on apples and pears will be available in '68. It's called Acaralate, has been tested for past three years, now has USDA registration.



Get All-Purpose Ointment USED BY VETS

Help avoid udder trouble with FAST-HEALING medicated Bag Balm. Loaded with soothing Lanolin. Smooth-spreading, stays on. Great for injuries, chapping, windburn, massage of caked bag. At farm and drug stores. 5 lb. Pail at Dealers. 10 oz. $1.25 or write: FOLDER.

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YOUNG WORKERS

EFFECTIVE on January 1, 1968, the following farm jobs in agriculture are designated by federal authorities as "particularly hazardous" . . . and therefore prohibited for the employment of young people below the age of 16:

1. Handling or applying anhydrous amonia, organic aresenic herbicides, organic phosphate pesticides, halogenated hydrocarbon pesticides, or heavy-metal fungicides, including cleaning or decontaminating equipment used in application or mixing of such chemicals.

2. Handling or using a blasting agent. For the purpose of this subparagraph, the terms "blasting agent" shall include explosives such as, but not limited to, dynamite, black powder, ammonia nitrate, blasting caps, and primer cord.

3. Serving as flagman for aircraft.

4. Working as (a) driver of a truck or automobile on a public road or highway; (b) driver of a bus.

5. Operating, driving, or riding on a tractor (track or wheel) over 20-belt horsepower, or attaching or detaching an implement or power-take-off unit to or from such tractor while the motor is running.

6. Operating or riding on a self-unloading bunk feeder wagon, a self-unloading bunk feeder trailer, a self-unloading forage box wagon, a self-unloading forage box trailer, a self-unloading auger wagon, or a self-unloading auger trailer.

7. Operating or riding on a dump wagon, hoist wagon, fork lift, rotary tiller (except walking type), or power-driven earthmoving equipment or power-driven trenching equipment.

8. Operating or unclogging a power-driven combine, field baler, hay conditioner, corn picker, forage harvester, or vegetable harvester.

9. Operating, feeding, or unclogging any of the following machines when power-driven: Stationary baler, thresher, huller, feed grinder, chopper, silo filler, or crop dryer.

10. Feeding materials into or unclogging a roughage blower or auger conveyor.

11. Operating a power-driven post-hole digger or power-driven post driver.

12. Operating, adjusting, or cleaning a power-driven saw.

13. Felling, bucking, skidding, loading, or unloading timber with a butt diameter of more than 6 inches.

14. Working from a ladder or scaffold at a height over 20 feet.

15. Working inside a gas-tight fruit enclosure, gas-tight grain enclosure, or gas-tight forage enclosure, or inside a silo when a top unloading device is in operating position.

16. Working in a yard, pen, or stall occupied by a dairy bull, boar, or stud horse.

These regulations do not apply to the employment of a youth under 16 by his parents or guardians. There are also exemptions for "student learners" in certain Vo-Ag programs . . . and applications for exclusion may be filed with the Secretary of Labor if an individual or organization believes that the regulation should not apply for some special reason.

SOFT HYDRAULICS

Ever think whipped cream and a sluggish front-end tractor loader could have something in common? "They do," says R.R. McCoy, Technical Service Representative of the Mobil Oil Corporation. Whipped cream is made by forcing air into the cream. Sluggish hydraulics can be caused by air getting into the transmission or hydraulic systems. The experts call it foaming and, in its worst stages, it even comes out of breather caps.

One of the most common "foamers" is a connection leak on the suction side of the hydraulic pump. Another is a fluid level that is too low or too high, causing extra "thrashing" in the system. Any dirt, water or other contaminant may also contribute to this foaming.

The Song of the Lazy Farmer

My neighbor thinks it is a crime if folks aren't working all the time; and furthermore he is afraid unkindly comment will be made unless he's out in plainest sight a-toiling hard from dawn 'til night. And so whate'er the weather be, old neighbor's out in it, by gee; however deep may be the snow, no matter how the blizzards blow, that poor deluded character is all wrapped up in wool and fur, and you can spot his reddened nose as through the howling wind he goes to haul some hay or fix a shed or spread manure 'til he's half dead.



Well, let him have his theory, I'll stick to my philosophy that on most ev'ry winter day it is intended man should stay indoors where he will not turn blue or come down with a case of flu. I claim we're made with thin-skinned ears to give a signal to our fears and by their tingling tell us when it's time to hibernate again. If it was our Creator's plan that I be an all-weather man, I figure I'd have nerveless toes and be equipped with cold-proof nose, by ears would not get tingly red and I'd have hair upon my head.

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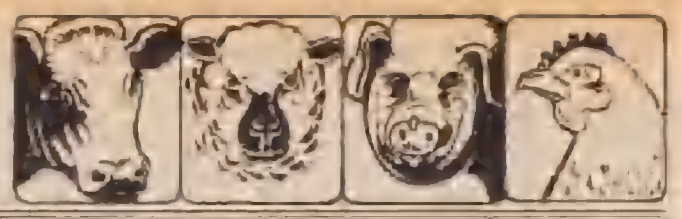
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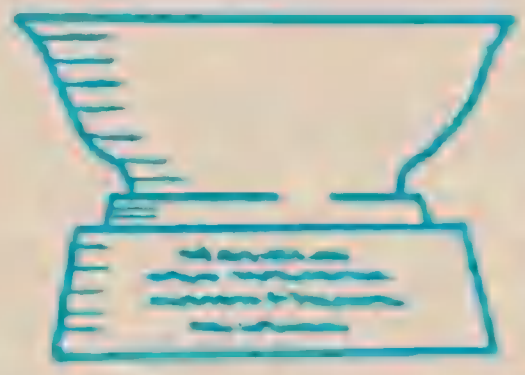
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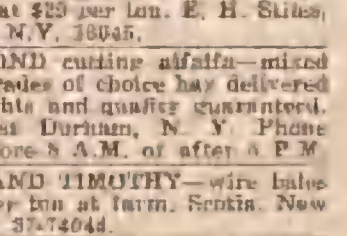
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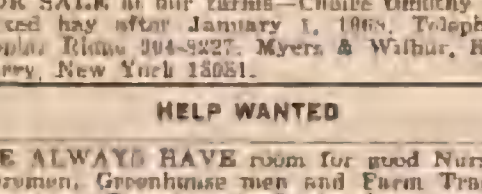
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FREE SEED CATALOG—48 pages; illustrated color. Garden seeds—vegetables—flowers—selected hybrids. Direct from breeder. Rodgers Quality Seeds, Inc., 1108, Hall, New York.

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GOOD BUSINESS

Only in operation since June 15, 1967, the New England Egg Marketing Association (NEEMA) . . . of which Oscar Turner of Livermore Falls, Maine, is president . . . has spread from Maine through New Hampshire, Massachusetts, and Connecticut.

A poultryman becomes a member by (1) buying at least one $50 share of common stock (only one vote per member); (2) buying one $100 preferred share per $10,000 layers; and (3) paying one cent per dozen on every 30 dozen cases sold. Funds dropped during a late summer price slump in 1967, and members agreed to a temporary 3 cents per case charge until funds were again up to normal.

NEEMA is a new type of egg marketing cooperative, whose major function is producer representation in the bargaining process which determines egg prices, orderly marketing, and cooperation aimed at preventing and controlling surpluses.

Protect Brown Egg Market

With transportation costs of about one cent per dozen difference between New York City and Boston, officials determined that whites should be priced one cent higher than New York, brown eggs two cents higher. No ten cents a dozen for premium for browns over whites . . . housewives might decide in favor of the lower-priced whites, and thus New England could lose its brown egg market.

Looking ahead, NEEMA hopes to increase its number to 6 million layers, and hire a full-time man who will do a good job in the market. — *C. L. Stratton.*

'Round the kitchen



with ALBERTA SHACKELTON

Are you taking full advantage of the time-saving, work-saving, and in some instances the money-saving convenience foods so widely acclaimed as the boon to all cooks?

Convenience foods are not new. For a long time we have had soups, canned and frozen fruits and vegetables, and the early "instants." Today you will find almost any product available in one or more convenience forms, and due to research, the quality of these products is improving. Billions of dollars' worth of convenience foods are sold annually in the United States, and the rise in their use has paralleled the increase of homemakers employed outside the home.

It is to be expected that some of the built-in services provided by the food processor will add to the price of convenience foods. This is more true in the case of bakery products than with processed fruits and vegetables. It may still prove profitable for a homemaker to use them when she adds the cost of her time (which is also worth money) to the cost of basic ingredients for making a similar product from scratch in her kitchen.

Keep a variety of favorite convenience foods on your cupboard shelves and in the freezer, so you can whip up quick meals for family and unexpected guests. Have fun occasionally reviewing supermarket shelves and cabinets for new additions to the "world of convenience foods."

To make **Brussels Sprouts Deluxe** shown with ham steak grilled and fruit garnished, as the basis for a winter supper, use one of the convenient condensed cream soups for the sauce.

Combine 1 package frozen Brussels Sprouts cooked according to package directions with ½ cup raw, coarsely grated carrots (or use ½ cup cooked Julienne carrots if you desire). Combine 1 can condensed cream of celery soup with ⅓ cup milk and mix with vegetables. Place in casserole, sprinkle with caraway, poppy or sesame seeds and bake in moderate oven (350) until heated through. Complete the meal with Jellied Citrus Avocado Salad and Gingerbread served with whipped cream.

JELLIED CITRUS AVOCADO SALAD
(U.S.D.A.)

1 package lemon flavored gelatin
1½ cups hot water
½ cup grapefruit juice
Dash salt
½ cup diced grapefruit sections, well drained
½ cup diced orange sections, well drained
1½ cups diced avocado.

Dissolve gelatin in hot water, add juice and salt, and chill until slightly thickened. Stir in fruits. Pour into 6 individual molds, chill until set, and unmold on crisp salad greens. Serve with any desired dressing.

TURKEY POPULAR

Now is the time to start using turkey left in the freezer from holiday meals. Use it coarsely diced in casseroles, for Creamed Turkey or Turkey a la King, in Turkey Fruit Salad (combined with halved seedless grapes, pineapple chunks, diced unpeeled apples, tossed with dressing of your choice and topped with toasted almonds); use it chopped in Turkey Roll or Turkey Souffle, and of course sliced in hot or cold turkey sandwiches. Recipes for two turkey casseroles follow.

TURKEY MUSHROOM CASSEROLE

5 to 6 cups coarsely diced turkey
½ pound fine or medium-fine noodles, cooked
1 pound fresh mushrooms, sliced and sauteed
OR
2 cans sliced sauteed mushrooms
1 package frozen peas, cooked and drained
3 to 4 cups gravy, medium thick, well seasoned cream sauce, or condensed cream of chicken soup thinned to medium thickness
Toasted slivered almonds

Combine turkey, noodles, mushrooms, peas, and gravy or sauce, using just enough to moisten the mixture well. Place in a lightly greased 2-quart casserole and heat in moderate oven (350) 20 to 30 minutes, or until heated through. When removing from oven, sprinkle top with toasted slivered blanched almonds. Serves 8.

TURKEY CURRY
(U.S.D.A.)

1 can condensed cream of chicken soup
⅔ cup whole or skim evaporated milk
¾ teaspoon curry powder
3 cups cooked diced turkey
1 cup drained pineapple chunks
½ cup sliced stuffed olives OR
2 tablespoons diced pimiento
1 can chow mein noodles OR
2 cups cooked rice
Few sprigs parsley



Photo: Campbell Soup Company

Brussels Sprouts Deluxe add color to the supper menu. They're also delicious and easy to make, using a condensed cream soup for the sauce.

Combine soup, and curry powder. Heat slowly, stirring until well blended. Add turkey, pineapple chunks, and olives or pimiento. Heat to serving temperature and serve over chow mein noodles or rice. Garnish with parsley. Makes 6 servings of 1 cup each.

Braised Whole Turkey Legs

Whole turkey legs, drumstick and thigh, from large turkeys are available in many market areas. They may be sliced and served hot or cold, or diced and used in salads and casseroles.

To prepare: Defrost legs. Rub flour seasoned with salt and pepper into the skin and brown in hot fat. Add a little water to pan or kettle, cover and cook over low heat on top of range or in the oven at 325° until the joint moves easily. Cook about 2½ hours. If cooked while still frozen, they brown less well and require about 3 hours.

Defrost Your Turkey This Way

Up to now, room temperature has not been recommended for defrosting turkeys because the outside of the bird could reach a temperature high enough to cause bacteria growth before the inside thawed. A safe room temperature method for thawing frozen turkey has been developed by U.S. Department of Agriculture researchers.

Leave turkey in its plastic wrap and place it in a large heavy double grocery store paper bag. Close bag securely. Small birds (8 to 12 pounds) should be allowed 12 hours at room temperature; large birds (20 to 25 pounds), 16 hours. This new closed paper bag method allows complete thawing while keeping outside surface temperature low enough for safety.

PAPER PRODUCTS

I find the following parchment paper products handy in my kitchen:

Cake pan liners available in 6, 8, 9, 10 and 12-inch sizes to prevent cake layers sticking to pan and breaking when layers are removed.

Liner paper, pure parchment with silicone coating that will not allow anything to stick. Available in 25 foot-roll cutter box in 15-inch width, from which liners for cookie sheets or cake pans can be cut.

Pie tape, crinkled parchment to stretch snugly around unbaked pie to prevent overflow and darkening of edges before top browns.

I also like the new foil muffin-size baking cups which may be filled and placed right on a baking sheet or placed in muffin pan cups for filling. They are more attractive than the regular paper baking cups.

DO YOU HAVE . . .

A recipe for Sour Cream Pie made with two crusts? Mrs. Charles Christensen, Pine Neck Rd., Southold, N. Y. 11971, says her mother made it and used chopped raisins, sour cream, eggs and sugar.

A recipe for "French" Pork Pie? Mrs. Anna Satsuk, Dearborn Road, Methuen, Mass., says it is served during the Christmas Holidays and made by simmering ground beef and pork on top of the stove, then putting them between two unbaked pie crusts.

A copy of Kate Smith's cookbook, offered over the radio about 27 years ago? This request comes from Mrs. Ralph E. Lane, R. D. 2, Rochester, N. H.

The "Little Red Schoolhouse" quilt pattern? Mrs. August Menzel, 197 Bay View Ave., South Amboy, N. J. 08879, would like to find it.

The AA Clothes Line

All Printed Patterns

9294. Dress with princess lines, shirt-buttoning. PRINTED PATTERN Half Sizes 12½-22½. Size 16½ takes 3 yds. 45-inch. 35 cents.

4757. Sew shift or cobbler apron. PRINTED PATTERN in Women's Sizes 34-50. Size 16 dress takes 3 yards 35-inch fabric. 35 cents.

4752. Sew paneled dress in many versions. PRINTED PATTERN in Children's Sizes 2-8. Size 6 takes 1-5/8 yards 35-inch. 35 cents.



9059. Band collar plus panel, buttons. PRINTED PATTERN Misses' Sizes 10-18. Size 14 takes 1-3/4 yards 54-inch fabric. 35 cents.

9111. A wardrobe of dresses to sew with one PRINTED PATTERN. Misses' Sizes 10-18 and Half Sizes 12½-22½. 35 cents.

4652. Cap sleeves for smart six-gore style. PRINTED PATTERN in Half Sizes 12½-24½. Size 16½ takes 2-1/4 yards 45-inch. 35 cents.

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7054. Make old chairs look like new. Step-by-step directions for sewing smooth, smart slipcovers, retying springs. 35 cents.



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CARPENTRY ...Farm Wife Style



by Teresa Van Wagner
Brimfield, Mass.

"Efficiency and Economy" is the cry of the successful business man. On the farm, what it boils down to is fix-it, make-it, and do-it-yourself. And it doesn't apply just to the farmer, but to his wife as well. For instance: I say, "Gee, the paint's peeling on the front door." He says, "The new cow's got sore feet."

Or if by some stroke of magical luck we get tuned in on the same wave length, it might go like this: I say, "The toilet's leaking again." He says, "I've got three water-bowls to fix in the barn."

As for projects in the creative department, I watched my husband take a pile of steel rods and a bunch of odd-length pipes and turn them into one of the best homemade bale catchers you've ever seen! But when it comes to a little creative carpentry on this side of the driveway . . .

My first project was a shelf for a base cabinet beside the stove in the kitchen. All that useless space irritated me into nagging my husband to please build me a shelf. One day I went to get a roasting pan and got so downright fed up unpiling and repiling all those pans that I hiked out to the barn to see what I could scrounge to make that shelf. I'll show him, I thought. I'll show him I can make has-been-parts into will-be-usefuls, too!

For the shelf, I dug up a piece of plywood left over from the truck body my husband built. For the side and back pieces to hold up the shelf, I sneaked a nice, bright red silo stave. In the workshop I got the sabre saw, an old, clawless hammer, and a can of rusty, used-before nails. I was dragging all the stuff into the kitchen just as three of our four sons got up from their naps.

"Mom!" "Wow, look at all that junk!" "Gee, what're you doing?"

"I'm going to build me a shelf in that cupboard!"

"You!" in chorus.

With that I crawled into the cupboard and started knocking on the walls for studs to nail the cross pieces to. I discovered we have the first studless house ever built. So I measured, sawed the silo stave into the proper lengths, and pounded nails into them every two inches or so. I figured I had to hit something solid with that many nails. (Note: Be very careful with silo staves in carpentry. Use skinny nails or you'll split the wood, and wear gloves as the slivers are wicked.)

Finally I got the cross pieces nailed to the wall and the plywood nailed to the cross pieces. I left a six-inch space between the left end of the cupboard and the shelf, so I could stand my pastry boards, cookie sheets, and cake racks on end. (There, they're out of the way, yet handy.) However, that left a corner of the shelf hanging in the breeze. In the cellar I found a stray piece of 1×2 for a leg.

After pulling, pushing, and pounding on the shelf, my husband told me, "I don't think I could have done a better job, myself." I tell you, I was so proud that I kept opening the cupboard door just to look at my new shelf. There was one dark thought though. I knew I'd gone and spoiled the whole helpless wife bit, and that from now on my ideas were going to be my projects.

Silverware Drawer Next

A couple of months ago, I made dividers for my silverware drawer out of a couple of beautifully finished, hardwood bedboards. I had some trouble with this one. Have you ever tried pounding a nail into hardwood? And I just couldn't get all the dividers the same length, no matter how much I measured. After a lot of sawing and bending several dozen nails the length of the silver just fit into the dividers. It sure beats that plastic tray floating around the drawer.

My most recent project was an extension for our desk. The constant clutter of books, papers, and whatnot never left any working room. If only we had a bigger desk, I thought.

From the cellar, I retrieved a cupboard door I'd used once before for an "Eggs for Sale" sign and a couple of 1×2's for legs. I

(Continued on page 49

LANDSCAPING TIPS

for your new home

by Nenetzin R. White

It is important to landscape your new home and to do it properly. If you don't, erosion will continue to depreciate your grounds and lower the value of the whole neighborhood. Many a new home builder is financially strapped upon completion of his home, and logically, basic landscaping should be included in the mortgage arrangements, or a government-insured home improvement loan obtained for landscaping.

The American Association of Nurserymen has outlined a few basic rules which should aid you considerably in your planning. They are as follows:

1. Planting and beautifying the home properly is a family affair. It should be a joint effort by both husband and wife, for in this way, both are satisfied with the outcome.

2. Secondly, talk to a leading nurseryman and tell him what your long-range plans are, with respect to your land. What do you want – more privacy, space for outdoor living, home fruit, specimen plants, hedges, flowers, shade?

3. Next, get the nurseryman to draw up a plan incorporating these ideas. In this way, you have a procedure to follow and avoid a hodgepodge of planting that may not turn out the way you had hoped. Planting without a design generally is more expensive in the long run than by making sure the right plants are put in the right places.

4. There are several ways to proceed from here. The home owner may use the plan and landscape the property himself on a pay-as-you-go basis, or he can have the planting done by a nurseryman. F.H.A. loans are available up to $3500 for this purpose.

5. Members of the American Association of Nurserymen have standards for home landscaping that insure soil stabilization, proper soils and drainage, and many other important features that should result in long-range success in making your property more beautiful.

The overall costs are far less for plantings well designed and installed than for those put in hit or miss. The greatest advantage of this particular procedure is that your home value is increased by considerably more than the total costs of the plantings, while the beautiful landscaping is enjoyed by the whole family. Well-planned landscaping grows in value each year, as the trees and shrubs mature. One survey showed that the right plantings are worth many times their original cost.

With today's shortage of labor, it should save you money to bring your plot plan to a landscape nurseryman. I know from experience that someone must pay for taking costly measurements and figuring lot lines. In all probability, you or your builder already have these figures.

Then, too, most landscape nurserymen will be happy to instruct you in the procedures for making a lawn, doing your own planting, constructing walks and patios properly, and to offer help in practically everything that will add to your outdoor pleasure and the beauty of your grounds. Do-it-yourself landscaping is really practical; it can be done over many weekends and will save you a goodly sum of money.

Carpentry

(Continued from page 48)

couldn't find the sabre saw this time (I think he hid it after I broke those three blades), so I had to use a hacksaw to cut the legs to size.

After nailing the legs to the door, I tacked a piece of foam-backed, black and white checked wool over the top of the egg sign. The extension fits into a corner with its right edge resting on the desk. A piece of doubled masking tape between them keeps the extension in place. The legs stand on top of the baseboard heater. It's not the most professional job in the world, but it more than serves its purpose.

In between these projects, I've had several that turned into chaotic disasters. I've never told anyone about them, and I don't intend to now. But nothing ventured, nothing gained. Too, there's a special kind of satisfaction that comes from making a useful, inexpensive something out of otherwise useless items. What's more, you get an insight into just what kind of thinking goes into your husband's crazy ideas!

Our sons no longer stand aghast when their mother struggles through the back door with all her paraphernalia. They just shake their crewcut heads and say, "Oh no!" "What now?" "There she goes, again!"

We're sorry . . .

An error was made in printing Mrs. Florence Pickett's recipe for Sour Cream Sugar Cookies in our December issue. The ingredients should have called for ½ teaspoon baking soda instead of ½ teaspoon baking powder.

PARENTS' SECRET

by Roy Z. Kemp

Parents are wise who quickly learn
The words their progeny will spurn
And speak, instead, words most beguiling,
Without a qualm, discreetly smiling;
Words actually in contradiction,
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With Our ADVERTISERS



Oliver Corporation's product line for '68 has been revealed . . . including a new model 1450 tractor (55 certified pto H.P.), a Category III 3-point hitch, and operator comfort options. The latter include a dust-proof tractor cab with air conditioner, a stereo tape player having dual speakers, and a six-transistor AM radio (see picture).

Coming late in 1967 is production of a new turbo-charged 105 H.P. tractor, and an optional auxiliary-transmission unit.



Mow/ditioner, a machine that mows, conditions and windrows in one pass through the field, is being produced by Avco New Idea Farm Equipment Division, Coldwater, Ohio. The Mow/ditioner, which features a 9-foot cut, has conditioner rolls that are 102 inches wide and are similar to those used on Avco New Idea's nonstop, plug-free hay conditioner. Top roll is made of rubber; bottom roll is fluted steel.

Kenneth Harrington is now Regional Sales Manager for Babson Bros. Company in 7 northeastern states, including New York, Connecticut, Maine, Vermont, Massachusetts, New Hampshire and Rhode Island. He has been associated with Babson Bros. Co., builders of SURGE milking equipment, for 22 years. Included in his many responsibilities were assignments as Regional Sales Manager in the Pacific Northwest and the Midwest.



K. Harrington

He is a consultant to the Dairy Farm Milking Methods Committee of the International Association of Milk, Food and Environmental Sanitarians.

A guarantee is available to all farm and residential installations of Kaiser Aluminum Diamond-Rib (R) and Twin-Rib (R) roofing and siding completed on or after July 1, 1967. Terms of the guarantee provide for replacement of any Kaiser Aluminum roofing sheet that is perforated by hail within 15 years of installation, if premium quality Diamond-Rib was used, or 10 years for installations of economical Twin-Rib. Additional corrosion guarantees on these products cover periods of 30 and 20 years respectively.

Windcharger Corporation, Sioux City, Iowa, has introduced a new power failure alarm. The WINCO POWER SENTRY plugs into any AC receptacle; a battery-powered buzzer sounds an alarm when the power fails. Just leave it in the outlet, it's in constant safety service! Complete information from the factory . . . Windcharger Corporation, 1305 Zenith Drive, Sioux City, Iowa 51102.



A new rear mount has been designed for the Shaver Hydraulic Post Driver. This new fitting is available for both standard 3-point hitches and the IH Fast-Hitch. The original and more popular front mounting for both row crop and wide front end tractors will continue to be offered.





Shown above is Waikiki with Diamond Head providing a majestic background. This area has expanded at a fantastic pace in recent years, but still keeps the wonderful, warm, and happy spirit of Aloha.

I'm sure you'd LOVE HAWAII

by Augusta Chapman

Again in 1968, you will have a choice of two Hawaiian Holidays, arranged for you by American Agriculturist and our tour agents, the Travel Service Bureau of Needham, Massachusetts. The first is a spring tour leaving home April 6, and the second is our traditional "Aloha Week" vacation in October. Both are approximately two weeks in length, and itineraries will be the same except the fall group will be in Hawaii for the colorful Aloha Week activities.

My husband and I went to Hawaii last summer and loved every minute we were there. Each island has a charm and attraction all its own, and I'd like to tell you just a few of the things we did – things you also will do if you go to Hawaii with us this year.

On the "Big Island" of **Hawaii**, we visited Hilo, the orchid capital, and took an all-day trip through volcano land. We had lunch at Volcano House on the rim of Kilauea Crater, the world's most active volcano, and could see steam rising from cracks in the earth's surface in almost any direction we looked.

The following day we drove through the vast Parker Ranch on our way across the island to Kailua on the Kona Coast. En route we saw beautiful Akaka Falls, visited an orchid nursery and a shop where all sorts of lovely lauhala bags are handmade from fibers of the hala or pandanus tree.

I guess the fact that this island has very few beaches was my biggest surprise of the whole trip. Here is where the famous black sand is found, but because there is still so much volcanic activity, the coast is much more rugged than the other islands. Each night on Hawaii, you'll find the bed turned down and a perfect little vanda orchid on your pillow. On all the islands, orchids are used to garnish food, as we use parsley here at home.

Lahaina, on the Island of **Maui**, is a fascinating place. It was very hot the day we were there, and we welcomed the shade of her huge banyan tree, second largest in the world. Lahaina was the old whaling center, and it was here that much of the movie "Hawaii" was filmed. We also went to see the "Needle," a fern-covered volcanic freak rising more than 1,000 feet above the Iao Valley floor, and had lunch at Sheraton-Maui, the upside-down hotel, where guests go downstairs from the lobby to their rooms.

On **Kauai** our hotel was situated on Kalapaki Beach, and I think we enjoyed the ocean here even more than at famed Waikiki, simply because the beach was less crowded. Each room had its lanai (balcony), and it was fun watching the surfers riding the waves from early morning until dark. In fact, I was never able to wake up early enough to see the first one arrive! And here on the beach each evening at dusk, the ancient torchlighting ceremony seemed more impressive than anywhere else.

The boat ride up the Wailua River to the Fern Grotto was delightful, as was the trip to Waimea Canyon, "Grand Canyon of the Pacific," and Kalalau Lookout. Native singers entertained us along the way, and told the legends of the River and of Kauai.

On **Oahu**, our hotel was on Waikiki Beach and right across from the International Market Place. This is a fascinating place, and whenever we had a few free minutes, we'd stroll along the shady, winding pathways, exploring the shops with their vast selections of Polynesian souvenirs.

One day we took the Circle Tour around the Island stopping at Sea Life Park, the Crouching Lion Inn (be sure and have a piece of their coconut cream pie!), and the Polynesian Cultural Cen-

(Continued on page 51)

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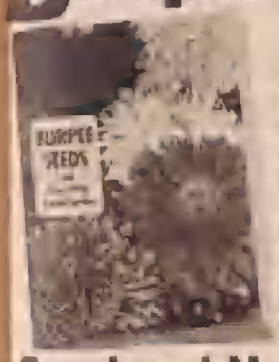
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Send 50 cents in coins for your new Needlecraft Catalog to: American Agriculturist, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011.

Hawaii

(Continued from page 50)

ter. This last is a photographer's paradise with its six native villages representing Samoa, Tonga, the Maoris of New Zealand, Fiji, Tahiti, and Hawaii. Natives explain their handicrafts and cultures, and all buildings are authentic reproductions of those found on the South Pacific Islands.

Another day we took a cruise through Pearl Harbor and heard a vivid description of the events which took place there on December 7, 1941. The hull of the Battleship Arizona rising above the water is an impressive sight and a fitting memorial to all the men who lost their lives on that infamous day.

On Sunday some of our group worshiped at Kawaiohao Church, oldest Christian church on Oahu. The service is conducted partly in English and partly in Hawaiian, and the choir is one of the most beautiful I've ever heard.

There are so many things to see and do in Honolulu! There's the fabulous Ala Moana Shopping Center (said to be the world's largest), the Kodak Hula Show, Waikiki Aquarium and Zoo, the Hawaiian Village of Ulu Mau, the Wax Museum (also across from our hotel), Dole Pineapple Cannery tour, and just dozens of other interesting and fun things!

Nicest Way To Travel

For seven years I've been telling you how easy it is to travel with American Agriculturist and how our all-expense ticket covers everything. Now I know from experience just how true this is! Each hotel had luxurious accommodations, wonderful restaurants, and fascinating shops. The food was truly gourmet-fare; I especially enjoyed the fresh fruit and the very delicious native fish, mahimahi.

We had a few meals on our own in Waikiki and liked this arrangement because it gave us a chance to try some of the marvelous restaurants. We heartily recommend the Pagoda Floating Restaurant, The Top of Waikiki, and the Royal Hawaiian's luau. I think everyone going to Hawaii should attend a luau. Most of the food is good, and even the poi is fun to try! Jimmy Stewart happened to be there the night we went, so this was an added bonus.

One's baggage can sometimes be a real problem, especially for women traveling alone. It's a nice feeling to set your luggage outside the hotel room and not think of it again until you find it in your room at the next destination.

Have I made you want to go to Hawaii? I hope so, for I'm sure you'd have the time of your life and fall in love with the Islands, as we did. Just check the coupon, and the illustrated itinerary will be sent to you at once.

Caribbean Cruises

It is still possible to join either of our Caribbean cruises. The first is a 13-day (February 9-22) **Good Neighbor Holiday** aboard the Prinses Margriet of the Holland-American Line. The ship carries better than 100 passengers, is completely air conditioned, and you will find life on board one of heart-warming congeniality and informality. Our ports of call will be Curacao and Aruba in the Netherlands West Indies, La Guaira (seaport for Caracas), and Trinidad.

The second is our popular **Freighter Cruise** on one of the Grace Line ships. It will sail from New York on March 2 and return on or about March 22. This is truly a casual cruise, and the exact ports of call will not be known until departure. Probably they will be Santa Domingo, Aruba, LaGuaira, Puerto Cabello, and Baltimore.

You will find rates for both of these cruises very reasonable, and you can spend lazy days in the sun cruising the calm, blue waters of the Caribbean.

Also, as we write this, there are still a few places left on our Mexican Holiday, February 15 to March 8. We have already described this for you at length and can assure you of an excitingly different tour if you come "South of the Border" with us.

Gordon Conklin, Editor
Box 370-T
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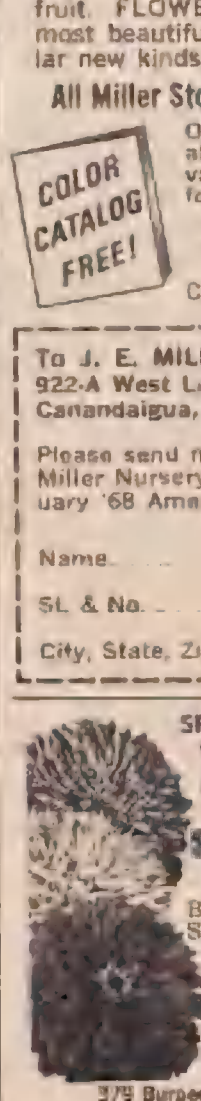
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ED EASTMAN'S PAGE

There Is A Place

In the December issue I stated that I thought it was too bad that so many small and moderate-sized farms were being absorbed by the big ones. Big farms are all right, of course, but just making them big is no guarantee of success.

The most valuable surplus of the farms in the past has been the boys and girls trained in the habits of work and responsibility that only a farm could give them. Now there is not so much of this surplus because there are so few farms left. Moreover, the rapidly decreasing number of farms is resulting in the farmer having less and less to say in government and in the market place.

But I believe that there is still a place for the moderate-sized farm, and the many letters that I have received from successful small or moderate-sized farmers prove my point.

All of these letters show the practice of certain basic principles. The cows on a dairy farm must each produce from twelve to fifteen thousand pounds of milk a year. The land must be fertile and the pastures improved, or there must be summer feeding. To keep the modern equipment operating, the farmer must be more or less of a mechanic and have repair tools with which to work. Except possibly in haying, he won't be able to hire much help.

Above most every other necessity, there must be accurate and well-kept farm accounts. And last but not least there must be some time squeezed in somewhere for an occasional picnic, short trips, and a part in community life.

Here is a letter which shows what I mean:

"I am doing very well with 100 tillable acres and an average of twenty-seven to twenty-eight cows. I have a wife and four children. The only debt we have is a small mortgage on our farm. We are able to pay all of our bills easily every month and live comfortably. We have an up-to-date large house, and almost all of the farm buildings are painted. We do have good land and good cows (15,000 lbs. milk per cow per year). Our barn is an old basement type, but is in good repair. We have thirty stanchions, gutter cleaner, silo unloader and bulk tank. I also have modern up-to-date tools to farm with. We have a 14 × 40-foot silo put up a few years ago.

We bought this farm thirteen years ago with only little cash money, but have done well ever since. We do not hire any labor, and the only machine I hire is a corn picker. My wife does not have a job in town and does not need one. She helps me some in the summer, but does not help with the chores. I am almost always done work, including chores, by 6:15 p.m., even in the spring and summer.

We feel that we can produce milk much cheaper than lots of large farms. — *R.J.K.*

IN HONOR OF J. C. CORWITH

One of the finest men who ever served the farmers in the northeast was the late J. C. Corwith, known to his thousands of friends by his nickname of Pete.

While operating a tractor years ago he had the misfortune to lose a leg, but the handicap did not hold him up for long. Incidentally, I have noticed many times that handicapped people often accomplish more than others without one, and perhaps more than they would if they had not had the accident.

It was so with Pete. With his sons, he directed and operated a large farm at Water Mill, Long Island, and in addition he found the time to help northeastern farmers in several very important positions. For many years he was president of the G. L. F., and played an important part in building that organization. He was a member of the Farm Credit board at Springfield, Massachusetts (and later was its chairman), which helped to serve the farm credit needs of farmers. For years Pete was a member of the New York State Board of Regents, to which he constantly brought the point of view of farmers on education policies.

To honor Pete and to carry on his unselfish work, a committee has been formed to raise a scholarship fund for boys in the New York State College of Agriculture. It is hoped that all of Pete's friends, and all of those whom he served so well, will contribute something . . . anywhere from a dollar to whatever you can afford . . . toward this fund. Address your contributions to the chairman of the committee, Mr. John Wickham of Wickham's Fruit Farm, Cutchogue, Long Island, N.Y. 11935.

NEW YEAR'S PRAYER

Our Father, at this New Year's time we turn to Thee to help us to be better and to do better, to ask for Thy guidance and Thy help to know what is right, and to have the spiritual courage and the physical strength to do it. With Thy help, Father, we are determined to make the new year better than the old, to profit by the mistakes we made last year and not to make so many this year. Our problem often, Lord, is not only to do right but to know what *is* right.

As Thou knowest, God, most of us pray for peace on earth and good will to man. We pray that our own country will do its part in leading the way to peace when it can do so with honor. Give our leaders, oh Lord, we pray, the knowledge and the ability to make the right decisions and to carry them through.

But sadly, Lord, when we look honestly into our own hearts we know that there can never be peace among nations until we recognize that it must start with ourselves, right in our own hearts. We well know, God, that man is naturally a quarrelsome, fighting animal, and that we will never have permanent peace until we learn to live peaceably with ourselves and with those around us. For nations are nothing but groups of individuals.

So, God, help each of us, we pray, in our daily relations with those we love, with our friends, and with everybody just to be kind. Help us to set up and carry through the goal or ideal that we will not say anything or do anything to others that we would not like if they said it or did it to us. We know, God, that if You will help us constantly to follow just that one rule as well as we can, it will bring us more happiness than we have ever enjoyed, and will do more than anything else to bring about peace in our families, in our communities, in our country, and in the world. Amen.

HOW ABOUT IT?

I have a farmer friend who with his wife comes about as near to living a perfect life on a farm as anyone I know. Over the years, this couple have managed to adjust to the rapid changes that have come in their time so as to make a good living, raise and educate a family of children, and get their share of happiness while doing it.

Better than most successful farmers, they have made farming a life as well as a living.

One of the ways that has helped this couple to live a good life on a farm is that they always set a good table . . . a lowly goal or ideal maybe, but a very good one. Without being in any way extravagant, my friends have always insisted that even when times were bad and the going rough, they had what they wanted to eat and plenty of it.

No small factor in achieving this goal and keeping expense down was raising a variety of fresh food for family use on their own farm. There were always fresh eggs, and a chicken for the pot when wanted. A pitcher of fresh milk is always on the table. In the large freezer there is fresh beef, pork, and other frozen products. Best of all, this couple grows a wonderful garden.

"Too busy" some of my farmer friends emphatically answer me when I suggest that the farmer himself should grow and eat "high off the hog" before he sells his good products for other folks.

I disagree. No farmer is too busy to treat his family and himself to the food that he can produce better than anything he can buy in the market.

It's planning time. How about it?

IT MADE HER HAPPY

Nothing I have ever done has brought me more satisfaction than my book, "Journey to Day Before Yesterday," because every mail brings letters from enthusiastic readers to whom the book has brought forgetfulness for a while of present problems, and brought back memories of many happy experiences in their own lives.

Although it was on the sad side, one of the best of these letters came from a man who had lost his wife after fifty-five years of marriage.

"I lost my wife" he said, "just two months ago. She shared life through good years and bad alike with no regrets. She was a wonderful companion through it all. It is harder than I ever thought it would be to become re-adjusted without her. A friend and neighbor loaned us your wonderful book, 'Journey to Day Before Yesterday' and my wife read it and reread it as long as she could hold it. We thought everyone should read it."

To get a copy write to American Agriculturist, Department Book, Savings Bank Building, Ithaca New York 14850. The price is $5.95, plus 12 cents tax in New York State.

EASTMAN'S CHESTNUT

My long time friend, Wendell T. Card, sends me the following chestnut which he stole from the Troy (Pennsylvania) Pennysaver, with the hope that it would give me a chuckle. It did, and maybe it will you:

After the farmer's frail and elderly wife broke her leg, the doctor put it in a cast and warned her not to walk up or down the stairs. After a month of healing, the doctor removed the cast.

"Can I use the stairs now?" she asked.

"Yes," the doctor said.

"Good," she exclaimed. "I'm certainly sick of climbing up and down the drain pipe."

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CORRESPONDENCE STUDY

"I am interested in taking a piano correspondence course with the U.S. School of Music at Port Washington, New York. What do you know about this school?"

According to our records, the U.S. School of Music is listed among the private home study schools accredited by the National Home Study Council.

To become accredited by the Council, each school has made an intensive study of its own operation, opened its doors to a thorough inspection by an outside examining committee, supplied all information required by the Accrediting Commission, and submitted its instructional material for a thorough review by competent subject-matter specialists. This examination is repeated every five years.

A Directory of Accredited Private Home Study Schools listing 45 accredited schools may be obtained without charge by sending a post card to: National Home Study Council, 1601 18th Street, N.W., Washington, D.C. 20009.

Before signing up for any correspondence course, we always recommend a person be sure he has the time, money, ability, and the perseverance to profit from the course, because once the contract is signed it is binding.

Some colleges and universities also offer correspondence courses in specific subjects. For instance, the Cooperative Extension Service of the College of Agriculture at The Pennsylvania State University offers 68 correspondence courses in agriculture and 13 in home economics. No college credit is given for these courses. The primary purpose is to take technical information to people at home in subjects in which they are interested.

Further information may be obtained by writing Correspondence Courses, 202 Agricultural Education Building, The Pennsylvania State University, University Park, Pennsylvania 16802.

It might be well to note here that New York State for one does not recognize correspondence schools for nursing. In order to be licensed as a practical nurse, one must pass the State Board examination and be graduated from an approved school of practical nursing. The State Department of Nurse Examiners, 23 South Pearl Street, Albany, New York, can furnish information regarding approved schools.

A CATCH

"A man selling vacuum cleaners called on us the other night. He told us we could get a vacuum for practically nothing simply by providing him with the names of friends and collecting a bonus each time a sale is made. He tried hard to sell me, but I didn't buy because I think there's a catch to it. Do you know anything about this?"

This method of selling is called "referral selling," and is probably the most notorious consumer racket in the nation. Bonuses promised in cases like this seldom materialize, and the consumer winds up paying far more than he thought he would pay and far more than the product is actually worth.

Government agencies and Better Business Bureaus have been waging a drive on promoters of chain referral sales plans. Over the last few years, postal authorities have curbed 200 chain referral promotions and are currently investigating 109 others for possible violations of mail fraud and lottery statutes. The Justice Department, however, has estimated that referral rackets now operating involve a public loss of $200 million.

In the most recent case, involving conviction by a Federal jury of aiding and abetting a mail fraud, a manufacturer and distributor of cleaners were charged with collaborating in a scheme which led prospects to believe they could get the vacuum cleaner for the down payment of $19.90. The actual price was $282, including financing charges. Supposedly, each time someone on the customer's list bought the product, the customer would receive a $25.00 bonus payment. Testimony showed that only 10% of the buyers received more than three bonuses.

The simplest way to avoid being victimized in a referral scheme is to buy only from someone whom you know is reliable.

CAN YOU HELP?

One of our readers, who has been spending some time in this country and who is going home to Denmark soon, has asked for help in locating a book which was published in 1940. If you have a copy of "I Choose Denmark" by Frances Hakket, which you would sell, please write to Mrs. Thora J. Petersen, Box 222, Otego, New York 13825.

Farmer Hurt In Hurricane



In February 1967 a hurricane with winds up to 82 MPH hit Western New York. Wilfred Sion, a Lawtons, N.Y. farmer, was caught by a fierce gust and thrown into a hay rake. Picking himself up he realized he was badly hurt. His next twelve days were spent in the hospital under treatment for a compound fractured right leg.

After several months, Mr. Sion was again on his feet back to work. North American was able to help pay the medical bills and provide income while laid up. A combination of three policies paid $2100.00.

Shown delivering checks to Mr. Sion is local agent Rod Guichard of Randolph, N. Y.

OTHER CLAIMS PAID

A friend's name may be in this list.

Ernest Cook, Preston Hollow, N.Y. Can fell on foot—broke toe	$ 120.00	**Eugene Pfohl, Sanborn, N.Y.** Hitching wagon to tractor—broke finger	$ 282.02
Charles P. Bedwell, Belfast, N.Y. Kicked by cow—injures neck	480.21	**Mary Ethel Johnson, Waterville, N.Y.** Slipped, fell—broke hip	1248.20
LaRue Button, Andover, N.Y. Tripped, fell—inj. knee	1981.46	**Martin Wyffels, Sr., Canandaigua, N.Y.** Fell on ice—inj. back	1000.00
Hiram Blakeslee, Maine, N.Y. Kicked by cow—broke leg	811.63	**Leo F. Woodworth, Lyndonville, N.Y.** Caught in lawn mower—inj. hand	830.37
Harold L. Kent, Olean, N.Y. Burned by steam hose—inj. face, chest	962.71	**Kenneth Sherman, New Haven, N.Y.** Sawing board—injured hand	405.00
Lillian Waite, Little Valley, N.Y. Auto accident—inj. knee, abdomen	1013.88	**Howard Maxim, Norfolk, N.Y.** Caught in tractor P.T.O.—injured leg	454.28
June Aldrich, Moravia, N.Y. Slipped on ice—broke ankle	1034.40	**Eva Rood, Lisbon, N.Y.** Fell downstairs—broke hip	291.43
Jack DeWitt, Skaneateles, N.Y. Caught in pulley—inj. hand	172.59	**Marvin L. Wilson, Edinburg, N.Y.** Thrown from motorcycle—inj. head, broke ribs	529.21
Hazel Smith, Silver Creek, N.Y. Knocked down by car—inj. back	714.50	**Russel W. Fancher, Sloansville, N.Y.** Tractor turned over—broke wrist	740.00
Alexander Poole, Greene, N.Y. Fell through wagon—inj. leg	124.38	**Harris Jenkins, Alpine, N.Y.** Fell—cut hand	871.22
John Shelley, Ellenburg Depot, N.Y. Fell off wagon—broke foot	296.06	**Alfred Noble, Seneca Falls, N.Y.** Cranking tractor—broke leg, inj. shoulder	300.00
Viva Hyer, Cuyler, N.Y. Fell on steps—broke pelvis	1290.00	**Stephen Smolarz, Hammondsport, N.Y.** Auto accident—mult. injuries	1095.00
Brenda Stoker, Homer, N.Y. Fell off chair—broke arm	532.35	**Durward Prutsman, Troupsburg, N.Y.** Thrown from tractor—broke arm	694.93
Edward Nichols, Bloomville, N.Y. Thrown from tractor—injured back	295.70	**Orville Whitmore, Callicoon, N.Y.** Kicked by cow—inj. back	160.00
Francis Kuhn, Lawton, N.Y. Grinding meat—injured hand	359.35	**George Stunimiller, Jr., Berkshire, N.Y.** Kicked by cow—inj. knee	556.14
Ira Clark, AuSable Forks, N.Y. Fell from truck—broke hip, shoulder	1770.00	**Shirley Ferris, Willsboro, N.Y.** Auto accident—inj. back	1013.85
Donat Poirier, North Bangor, N.Y. Fell on ice—broke wrist	257.13	**Ivan Robinson, Groton, N.Y.** Jeep accident—cuts and bruises	342.54
Katherine Hand, Prattsville, N.Y. Fell on sidewalk—injured ankle	160.00	**Thomas B. Welton, Macedon, N.Y.** Fell from swing—broke arm	235.78
Donald Van Deusen, Stafford, N.Y. Crushed by cow—broke arm	863.83	**Clarence Freeland, Palmyra, N.Y.** Lye broke out of pipe—burns of eye	734.24
Stanley Smagalski, Mohawk, N.Y. Kicked by cow—broke leg	952.86	**Lee Combs, Middlebury Center, Pa.** Struck with tree limb—injured leg	869.12
Jack Trombley, Philadelphia, N.Y. Chisel broke—inj. eye	1027.15	**Miles B. King, Troy, Pa.** Fell from hay elevator—broke wrist and toes	588.44
Leonard V. Allen, Lowville, N.Y. Caught in P.T.O.—injured shoulder	2326.70	**Marvin L. Cook, Guys Mills, Pa.** Kicked by heifer—broke arm	263.64
Helen Steiner, Croghan, N.Y. Slipped on porch—broke ankle	391.00	**Soenke Haseloff, Asbury, N.Y.** Slipped on wagon while unloading—broke leg	476.58
Edith Johnston, Mt. Morris, N.Y. Stepped on ice—broke leg	269.28	**Charles Kustbar, Englishtown, N.J.** Slipped and fell—broke wrist	220.56
Clifford Lay, Madison, N.Y. Hit by tree limb—inj. face	129.00	**Vernon Barrows, Sr., Mendon, Mass.** Fell on ice—broke ankle	390.35
Daniel Kepler, Spencerport, N.Y. Thrown from tractor—concussion	1456.42	**Robert Hargraves, Kingfield, Me.** Hit with sledge hammer—broke wrist	280.86
Leo Anoech, Fort Plain, N.Y. Caught in baler—inj. wrist	188.93	**Harold Tasker, Barnstead, N.H.** Hit by falling tree—inj. back	111.43
Sophia McPherson, Amsterdam, N.Y. Fell down stairs—broke leg	446.24	**Laurence Reed, Windsor, Vt.** Tractor accident—broke hip	1170.00

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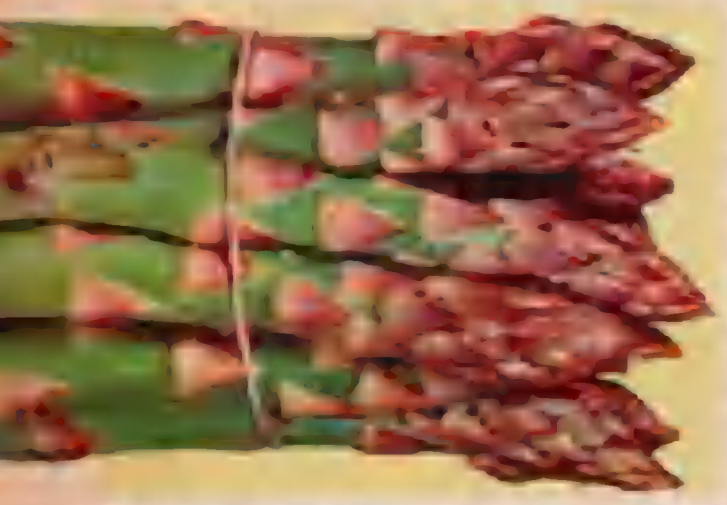
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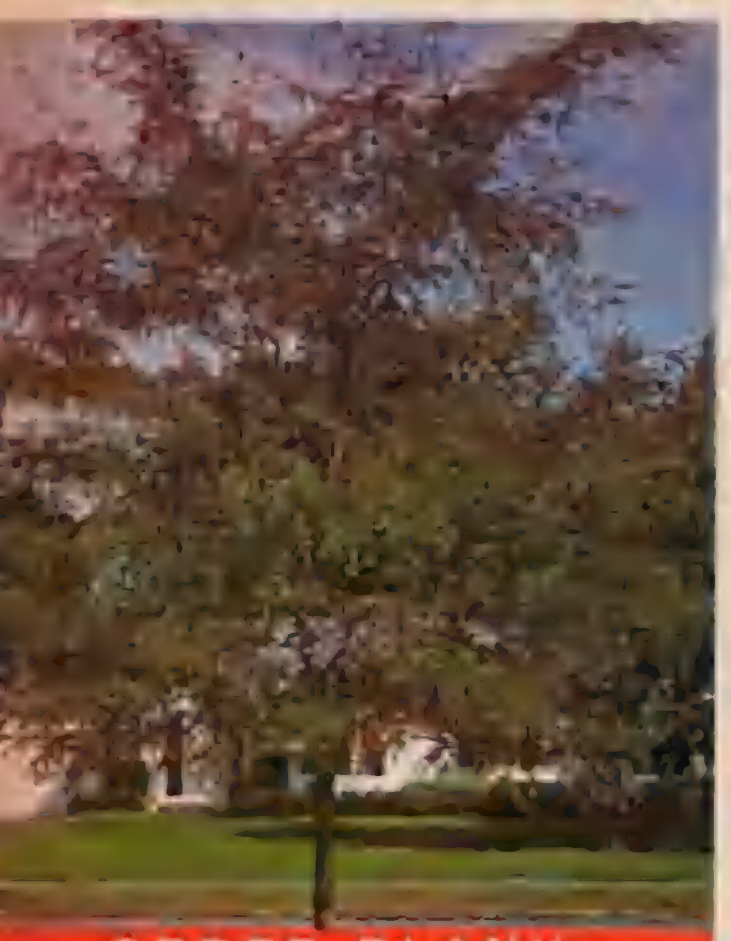
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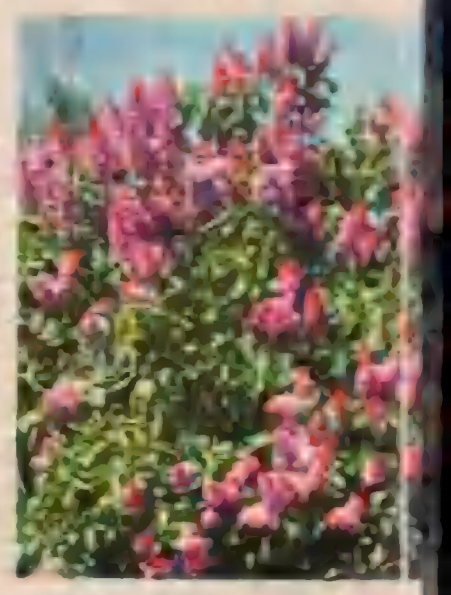




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American Agriculturist

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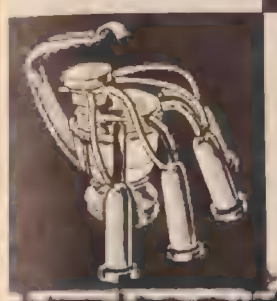
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For The Northeast Farmer

Vol. 165, No. 2

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EDITORIALS



by GORDON CONKLIN

THE SQUEEZE

From time to time, I have the opportunity to meet with various groups of farmers and agribusinessmen to participate in discussions concerning the marketing of specific farm commodities.

Dairymen at such meetings generally complain about the cost-price squeeze they're in, and point to the declining per capita consumption of dairy products as the culprit causing much of the problem. When the figures are all in, it's expected that domestic sales of milk equivalent in 1967 will be off 5 percent from '66 figures.

Beef producers, on the other hand, report that beef consumption . . . both total and per capita . . . reached all-time highs in 1967. You'd think beef men would be a jolly group, but they're as gloomy as the dairymen . . . and label the cause of their net income problems as "overproduction."

Both dairyman and beef producer are turning out more than will clear the market at "desirable" prices to the producer. Obviously, this can occur whether demand is enlarging or shrinking . . . because it is only one of the components of the supply-demand-price formula.

According to the economist, the function of price is to "allocate production resources in response to consumer demands." Price is the throttle on the production engine . . . opening up as price goes up, closing as price goes down.

As I listen to the marketing discussions I mentioned, the fact emerges that many farmers are very unhappy about the "natural" function of price in the enforcement of the economic law of supply and demand. Growing numbers of farm people seem willing to accept programs . . . government or private . . . that will boost prices by restricting supply, enlarging demand, or both.

The broad idea of enlarging demand is almost totally acceptable to farmers; the specifics of just how to put the concept into brass tacks (especially footing the bill) is not so generally agreed upon. The broad idea of restricting supply has not yet become widely accepted by farmers . . . except the vague notion that everyone should "cut back a little" voluntarily.

Supply management as a lever to move price will become increasingly important in agriculture . . . probably more through agreements between farmers and processors than by government edict. But, for right now, I see these alternatives for greater profits for the average farmer:

—Keep costs in line. The formula to remember is that **units produced, times price per unit, less costs, equals profit.** Sure, the labor unions and corporations . . . not to mention taxes by governments at all levels . . . are all busily forcing your costs up . . . and you feel mighty helpless about it. But the fact remains that cost control offers "right now" possibilities . . . and it's a "do it yourself" project.

—Produce more units, especially more units per man employed. "Efficiency" has become a dirty word to some, but the need for it in a successful business is one of life's certainties.

Managing supply can take advantage of the fact that a little too much of a farm commodity ruins the price; a small amount too little of it booms the price . . . both situations moving price all out of proportion to the available amount over or under market needs. There is plenty of future opportunity here, but farmers will have to forsake some of their traditional freedoms in order to score many touchdowns on this field.

THE RESNICK CAPER

Many a farmer and agribusinessman has puzzled over the exact nature of the virus causing Congressman Joe Resnick's recent case of constipation of the mind and diarrhea of the mouth. First, he attacked the Farm Bureau as an organization of "financial imperialism," then proceeded to take on cooperatives in general as being tax-evaders and general no-goodniks.

It was suspected from the first that something was occurring that didn't meet the eye. With the announcement that Resnick would be gunning for Senator Javitt's job, some of the pieces of the puzzle fell into place.

An old political "pro" explained it this way: "A politician needs to develop an image as savior of the people . . . something he can eventually earn by hard work and constructive statesmanship. If he's in a hurry, though, the instant answer is to shout about an approaching fire-breathing dragon . . . and then appear to attack it with great vigor. However, it is essential that the dragon chosen not have too fiery a political breath . . . or at least not in much volume!

"Well, let's see," muses the power seeker ". . . about whom or what can I develop a full-scale hue and cry . . . without really antagonizing a big bloc of votes? Eureka! Farmers don't have many votes . . . and, even better for my purposes, the Farm Bureau has some enemies even among farmers. The city voters will hear my cry that the dragon is coming . . . and the farmers who know better are few in number."

Back at the ranch, though, the farmers who knew better increased 1967 national Farm Bureau membership by 49,624 over that of 1966. Maybe the organization should hire Congressman Resnick as a consultant on membership development programs!

LEARN AT HOME

Over the years, AA folks have answered thousands of letters asking for information on hundreds of subjects in agriculture and home economics. We're happy to make the attempt . . . even though some of the questions are real puzzlers.

For those people who really want to dig deeply into a subject but don't want to attend formal classes, an ideal answer is the correspondence course system at Penn State University. Major subject matter headings include: poultry and livestock, dairy, agricultural economics and rural sociology, soils and farm crops, fruits and vegetables, horticulture (including home grounds), home economics, and special interests (beekeeping, news writing, farm safety, etc.).

Nearly a hundred different courses offer a broad range of topics, and costs to the student range from $1.25 to $4.25, depending on the course. The courses are available to any resident of the country . . . whether a Keystone Stater or not.

If you're really interested in enlarging by home study the dimensions of your knowledge across a broad spectrum of agriculture and home economics, then write to Correspondence Courses, 202 Agricultural Education Building, The Pennsylvania State University, University Park, Pennsylvania 16802. Ask for a catalog describing the offerings . . . and go to it!

MOVE ON!

I have long since cast aside the idea that an editor (at least THIS editor) can make pronouncements of deathless wisdom. But hopefully through these pages, and the letters you write, you and I can share some experiences, and perhaps better understand our world, each other, and ourselves.

Over the years, I've observed that so many human possibilities are short-circuited by dogged resistance to change in any form. The farmer on a submarginal acreage that "has hardpan to the second strand of fence wire" refuses even to consider opportunities elsewhere. The chronic juvenile demands his "constitutional rights" to remain in the dream world of Peter Pan, and rejects the responsibilities interwoven with the privileges he has already exploited.

It is as though we longingly peer back over our shoulders most of the time . . . fearful of the future, and desiring above all else to be relieved of the demanding process of inner change and growth. Yet, it is in the process of moving on from what we are to what we can become that you and I find that fragile treasure called happiness.

If I were to offer a motto for living . . . and for dying . . . I think my choice would be this paraphrase of one uttered by a famous mariner in 1492: Move on, move on, move on and on!

MISSING PERSONS

Attended a meeting recently at which various government agency administrators reported to their superior concerning welfare activities. One of the things that struck me was the great frustration among these administrators over what they called "failure to realize the full potential of eligibility." In plain English, this means, "Whatsamatter with these people that they don't *all* gather 'round for our handouts?"

Social welfare people, like all good salesmen, generally seek more "clients" . . . and study new ways of promoting expansion of the business. Expansion here can come by legislation that includes more people under the welfare umbrella . . . or by pushing ever closer to the "full potential of eligibility." Occasionally, of course, there is a professional social worker sincerely trying to help people get on their own feet . . . stimulating their inner growth rather than inner dependence. These workers will know why the "full potential of eligibility" is not reached . . . I suggest their colleagues ask them.

GRABBED IN THE HEART

Dr. Dave Call of the Graduate School of Nutrition at Cornell University reports that total fat consumption shows no real upward trend since 1940, but that major consumption shifts from animal to vegetable fats have occurred. Since per capita animal fat consumption has been decreasing over many years, I wonder how the American Heart Association justifies pinning its hopes for heart disease prevention on substituting polyunsaturated fats (vegetable) for saturated fats (animal). Figures show that heart disease prevalence has increased in recent years!

A Case man has something extra going for him

. . . because Case power is *usable* power . . .
high-torque power from a big-bore, long-stroke, big-leverage engine.
Reserve power that doesn't know how to quit when the going gets tough.
Less downshifting, more ground worked, more production per man-hour.

You'll like the way these big, moderate-speed Case engines power the job with no fuss or strain. That's the Case 530 shown handling 3 sixteens with ease. It's a 188 cubic-inch diesel with a rated speed of only 1900 rpm . . . a cool 600 rpm less than some comparable tractors. Wouldn't you agree that a Case will last longer, require less maintenance . . . as well as handling those big jobs just a little easier and faster?



Need still bigger power? Try the 4-5 plow 730 (inset). Massive 267 cubic-inch diesel has a rated speed of only 1700 rpm . . . up to 800 rpm less than some comparably-rated engines. See your Case dealer. Crop-Way Purchase or Lease Plans to fit your budget. J. I. Case Company, Racine, Wisconsin.

CASE



THE LINE'S DEAD!

by Wes Thomas

HAVE you ever stopped to consider how vital electrical power is to your farming operation? Electrical power suppliers have a good record for reliable service, but eventually . . . due to storms or other factors . . . you are going to be without power for at least a short period of time. If, after due consideration, you realize your operations could be seriously jeopardized by a temporary loss of power, you will want to consider installing one of several engine-driven generators used to provide emergency power. Here's how to pick the best one for your particular needs.

You should first determine the size of generator required. Since cost of the generator increases with capacity, plan to operate only essential appliances or machines.

List all essential motors by horsepower, and list all essential lights by watts. Motor horsepower is converted to watts by multiplying by 1000. Starting requirements, however, range from three to five times this value . . . depending upon the type of motor. Split-phase motors have the highest starting requirements; repulsion-induction motors have the lowest. Therefore, a ¼ horsepower split-phase motor will require 250 watts for normal operation and 1250 watts for starting.

The generator must be powerful to start your largest motor. However, since the running load is much less than the starting load, there will be generator capacity available after the motor is up to speed. Deduct the running wattage from the generator capacity to find the remaining capacity. This may be enough to start a smaller second motor; there may still be enough power left for the necessary lights.

If a generator large enough to start the largest motor is inadequate to start subsequent motors or meet lighting requirements, a larger generator is needed.

Heating equipment (including water heaters) and lights do not require extra power for starting. But heating or cooking appliances require so much electrical power when operating that they should be included in your list only if absolutely essential.

Through proper planning, the load can often be staggered to reduce the size generator required. For example, a milk cooler can be temporarily turned off when the milking machine motor is running; all other motors can be turned off when the barn cleaner is being used.

While such "load management" is far less convenient than unrestricted use of power from the electrical company, it does decrease the required size, thus the cost, of a generator.

Kinds of Units

Engine-Driven with Automatic Controls — These units are arranged so the power line is automatically disconnected when power fails. Then the engine starts, and as soon as the generator is up to speed, a load can be connected to it. The unit continues to operate until the high-power is restored.

Such units are expensive, so use them only for situations when short interruption in power cannot be tolerated. Two major factors add to their cost: **one,** the automatic controls; **two,** capacity required to handle all the regularly connected load.

Engine-Driven with Manual Controls — These units are similar to the previous type, but they are less costly because they lack automatic controls. Generator capacity can also be reduced because the operation of equipment can be regulated to make best use of available generator capacity.

These units are ready to go into operation whenever needed . . . provided you've started them at regular intervals so you **know**

LOR

For weed-free Corn

The combination of Du Pont "Lorox" plus Atrazine gives you the best annual weed and grass control for corn...while minimizing the carry-over problem. "Lorox" is known for its favorable rate of disappearance from the soil as well as for its superior ability to control a wide range of weeds and grasses. Atrazine is known for the manner in which it is tolerated by corn.

Last season, "Lorox" plus Atrazine was used by thousands of corn growers with excellent results. This year, why don't you profit from better weed control? Put the best of two great herbicides to work for you—spray the combination of "Lorox" plus Atrazine. Mix them yourself or buy a ready-mixed formulation of the two—look for the bag containing linuron. *"Lorox" is Du Pont's trademark for 50% linuron weed killer.

REMEMBER: *"Lorox" used alone in soybeans gives you the most weed and grass control for your money.*

With any chemical, follow labeling instructions and warnings carefully.

DU PONT REG. U.S. PAT. OFF.

Better things for better living ...through chemistry

ey're ready to go. The engine on hand and attached to the nerator.

Since a nighttime power fail- re may cause extensive loss in our particular situation, a bat- ry-powered alarm system can e arranged to awaken you.

Tractor-Powered Stationary Generator – The use of tractor ngine power eliminates the in- stment required for a separate ngine. Most tractors have ample ower to operate a generator rge enough to meet your criti- l needs. About two PTO horse- ower for each kilowatt of ectrical power is required.

However, for this to be a satis- ctory arrangement, the possible mitations of this setup should e recognized.

The generator should be ounted on a permanent base, hich is in a building large nough to also house the tractor. he tractor is sometimes belted o these units; during a rain- orm, the entire outfit must be rotected from the weather to revent belt slippage. Most units eing sold today are PTO rather han belt operated, but it's still andy to have the tractor inside.

The stationary generator can nly be used as a standby power ource. However, it will always e on hand and ready to go as uickly as you can belt up the ractor.

Tractor-Powered Portable Generator – This type is avail- ble in several attaching versions.

Starting Requirements for Different Motor Types *

H.P. × 1000 = watts for operation

Split Phase — watts for operation × 5 = watts for start.

Capacitor — watts for operation × 4 = watts for start.

Repulsion-Induction — watts for operation × 3 = watts for start.

*Plate on motor indicates motor type and H.P.

As an example, suppose you have a capacitor motor of ¾ H.P. This would require 750 watts for operation, and 3000 watts to start.

It may be side-mounted on some tractors, rear-mounted on the tractor hitch, or mounted on a small two-wheeled trailer. The latter version can be used with any tractor of 25 or more horsepower, and having a standard PTO.

For steady power use, a building to protect the tractor and generator from the weather is desirable. However, the generator need not be installed on a permanent base.

Emergency power is only one of several uses of this portable type rig. It can also be used to provide electrical power anywhere on the farm to drive ordinary electrical tools. Such tools as electric saws, drills, and paint sprayers are but a few examples of tools that you can use beyond the regular power lines.

If you have a reasonable amount of use for this type unit, it will help offset the cost of standby farmstead power.

If you have more than one set of farm buildings, always be sure to store the unit at the location at which you will want to use it as an emergency power source.

Regardless of the type of system, your generator should be connected to your wiring system only through a double-throw switch. This hookup ensures you disconnect from the high line when connecting your generator to your system. Otherwise, power will feed back through your transformer; thus electrifying a section of the line at high voltage. This could be fatal for any repair men working on the line.

Service and Maintenance

Available repair service in case of a breakdown is an important consideration in selecting a generator. The best choice is an established manufacturer who maintains a dealer-service agency in your area.

Before buying a generator, arrange for a demonstration on your farm to make sure your largest motor can be started and the largest combination of simultaneous loads operated.

Consult your power company before installing standby equipment. Their farm-service representative can usually offer suggestions which will help you select the correct size and type of unit.

Any engine-driven generator should be considered only as a temporary or emergency source of power. It can't compete in capacity or operating costs with high-line power . . . when the latter is available.

However, emergency-power costs should be considered in terms of "insurance" against failure of vital processes on your farm, rather than in actual cost per kilowatt-hour.

WATER SEEKERS!

The Ground Water Resources Institute declares that water witches, diviners . . or whatever you call them . . . have no magic powers. They point out that "there is some water under the earth's surface almost everywhere."

It isn't likely that many water witches think of themselves as possessing any occult powers, but there are 25,000 of them in the United States today, and a deep, underlying belief in their ability to locate water is in the minds of many people. Water divining has been practiced since the days of the Medes and Persians, and interest is by no means diminishing.

Whatever the source, water is one of the No. 1 necessities in our present-day world . . . so good luck in finding it!




OLIVER

Plow up to 2 acres an hour, cultivate 10 or even more

Move out with Oliver's new workpower in 3-4 plow tractors.

Look at the new 1450, the low-profile diesel certified at 55 PTO horsepower. Compact enough for barnyard chores. Hangs tight on the hills.

Yet this new 1450 is a real tiger in tough plowing. Basic weight is 6,000 lbs. without ballast. Differential lock takes you through slippery spots. Optional equipment includes shift-on-the-go Ampli-Couple that turns 7 forward speeds into 14, downshifts for 37% more tough-spot pull. You can even have 4-wheel drive for super loader and livestock power. -

For big-acreage cultivation, measure your longest fields against the Oliver 1550. Here you have 53 Certified PTO Horsepower, gasoline or diesel, with big tractor clearance, hydraulics and comfort.

The 1550 is field-proved with Oliver's new rear-mounted cultivator—up to 8 rows wide. For heavy 4-row *planters* or side-dressing equipment, you use Oliver's new semi-mounting of the new diamond-shaped tool bar. Your 1550 becomes the most efficient planting and fertilizing power you've ever owned.

Hitch your farming to an Oliver 1450 or 1550. You'll be acres and dollars ahead.
Oliver Corporation, Chicago, Illinois 60606.

OLIVER
FOR MEN WHO GROW



Should we put the brakes on the... LAND DRAIN



Here's a digest of recommendations made by the New York State Commission on the Preservation of Agricultural Lands . . .

Rural and urban residents of the Northeast have observed for years the movement of agricultural land . . . some of it highly productive in terms of food . . . into nonagricultural uses. In recent years, the amount of this transfer has reached a level (20,000 acres a year in New York) sufficient to cause leaders to wonder about the question of how far and fast the "land drain" should go.

Appointed by Governor Rockefeller, members of the New York State Commission on the Preservation of Land have rendered their report. Following are excerpts from recommendations made in that report:

Legislative Provision Should Be Made for the Sustained Participation of Agriculture in Formal Planning Processes at all Levels of Government Within the State.

The problem of preserving agriculture is complex and changing. It is an integral part of the total problem of development that planning is designed to help solve. There is no one formula or single legislative action that will insure the preservation of agricultural land. It cannot be a one-shot deal but must involve informed, continuous, and flexible participation in the changing New York scene.

An example of effective agricultural participation in planning already has been worked out following a recommendation made by this Commission. The appointment of a permanent technical liaison between the Department of Transportation (formerly Department of Public Works) and the Department of Agriculture and Markets was announced by Governor Rockefeller in June 1967. Participation in highway planning will introduce a consideration of agriculture into the evaluation of alternative road locations at an early point in the planning.

Form ARC

Broad and sustained participation of agriculture in planning could be provided for in a number of ways. The Commission recommends that an independent agricultural resources commission be created and that it be attached administratively to the State Department of Agriculture and Markets.

The major function of this commission should be to work with planning bodies to set statewide policies on how and where to retain land in agriculture. It should include private citizens from the major sectors of the agricultural industry, agribusiness as well as farming. The Commissioner of Agriculture and Markets, the Director of the Office of Planning Coordination, and the Dean of the New York State College of Agriculture should be ex-officio members.

The commission should have a competent full-time professional staff, familiar with all phases of agriculture, with the nature of formal planning processes, and with planning agencies throughout the State. The staff should be qualified to provide planners with accurate, timely, and meaningful information on agriculture and should be able to participate effectively in the development and improvement of methods for carrying out plans.

The commission staff should be qualified to participate in planning for specific purposes other than highways. One or more staff persons, for example, should be well versed in agricultural water requirements, so they could participate in the water use planning activities of the Water Resources Commission. In this capacity they would make available detailed and up-to-date information on the feasibility, value, and need for irrigation, and on the water needs and fluid waste disposal problems of the agricultural processing industry. They should participate with the staff of the Water Resources Commission in developing and improving methods for carrying out water use plans, including wholesale water districts, irrigation and drainage districts, permit systems for such facilities as the Barge Canal, and legislative proposals governing water rights.

Agricultural participation in specific-purpose planning is also needed in such areas as conservation and open space, development of rural recreation facilities, and general health and sanitation programs.

While specific-purpose planning provides many opportunities, the Commission believes that agricultural participation in general planning is most important. Urban growth planning will have the greatest impact on farming. More houses, roads, industrial plants, airports, and other urban structures will be built in New York in the next 50 years than have been built since the State was first settled. Agricultural land can be preserved best by close cooperation between an agricultural resources commission and the Office of Planning Coordination. Policies established through this cooperation at the State level will help guide the formation of local plans.

The Commission urges that more planning be done at the regional level and that an agricultural resources commission participate with the Office of Planning Coordination in aiding regional planning.

Needed Tools

Planning is useless without action. In carrying out plans the delicate balance between public good and the rights of individuals must be considered. If a land-use policy established by the State is truly comprehensive, it can play a leading role in defining that balance.

The most direct means for carrying out public plans often would compromise private rights too severely. Yet if the fate of land were left strictly to decisions in the market place, public good . . . the reason for planning . . . often would not be realized.

The Commission believes that **positive** means of plan implementation are best; major emphasis should be put on encouraging favorable types of growth, rather than prohibiting unfavorable types. A major task of an agricultural resources commission should be to help develop ways to draw urban development away from good farm lands.

Of the various methods studied, the Commission believes the best way to attract people to specific areas is to provide municipal services before development. This is an aggressive, forward-looking method of guiding growth. Providing the services . . . electricity, streets, water, sewer . . . that homes need will make these areas attractive for development.

Approval of State funds for sewer or water districts, local road construction, or other purposes should hinge on how well local proposals compare with overall planning objectives. There should be regional planning review of all applications for State assistance on projects that influence the nature, direction, and extent of urban growth. The Office of Planning Coordination and an agricultural resources commission also should study other means for guiding the use of State funds in local development.

A further aid to pre-servicing could be arrangements to facilitate the borrowing of money for this purpose. Possible arrangements would be development districts that could issue State-guaranteed bonds or a State development loan fund. These would make it feasible to provide sewers, streets, water, school rooms, and other services ahead of local demand.

Development Rights

Although presently possible, governments have purchased development rights in only a few instances in New York State. This may be partly because the gravity of the open-space problem has not been recognized and because the importance of the agricultural industry is not fully appreciated. On the other hand, governments clearly face some problems in acquiring these rights under present procedures.

The "real estate roulette effect" creates some of the problems. Rural land owners near cities may agree that not all rural land in their area could become high-value urban land, yet each may hope firmly that he will be lucky enough to make a high-priced sale. If governments were to pay enough to acquire development rights at voluntary sales, they would have to pay as though all the land were going into the most highly valued uses.

The Commission believes, however, that present condemnation procedures under the right of eminent domain do not provide a fair alternative to purchase at voluntary sale. It is expensive for land owners to contest offers made in condemnation proceedings and information obtained by the Commission from appraisers and Court of Claims awards indicates that farmers too often are underpaid for the property they surrender.

Utility Districts

Utility districts of various kinds . . . principally water, sewer, and lights . . . presently play an important part in the process by which urban areas reach out into the countryside. Unguided, they can raise taxes and force premature subdivision of farms. People move into a rural area, a family at a time, until the population density causes problems. When the problems become bad enough, one or more special districts are created.

The nature and extent of special districts is a major concern to farmers in many areas near cities. Effective and comprehensive preservicing programs would reduce the problems created by random growth of these districts. In the meantime, however, an agricultural resources commission needs to be concerned with regulation of the form and financing of these districts in today's semi-planned situations.

Methods to regulate the conversion of agricultural land to other uses can be valuable in some situations. Zoning is the most common of the present regulatory tools; others are subdivision regulations, building codes, and sanitary requirements.

Present laws permit the creation of zones from which all uses except agriculture are excluded. The Commission believes that exclusive agricultural zoning would be largely ineffective and often unfair if used extensively.

Under present law, zoning powers rest with cities, villages, and towns, which are too small to deal comprehensively with regional metropolitan problems. Often by the time interest arises in zoning, urban penetration of agricultural areas has progressed too far. An advanced scattering of urban penetration would mean many nonconforming uses in most agricultural zones. This advanced penetration also inflates the prices of farms.

Exclusive agricultural zoning imposed on farmers who bought their land at prices inflated by urban influences would cause real losses, unless arrangements were made to compensate them. Zoning traditionally, however, has been an exercise of the police power and has not involved compensation.

Residential zoning makes specific areas more attractive for new residents and thus helps to slow the scattering of new homes, but exclusive agricultural zoning under present laws is not the best method for preserving agricultural land.

Much of the scattering of people has taken place since rural residents have been able to get water and dispose of sewage individually and conveniently. It has been found, however, that the methods of getting water and disposing of sewage often pose health hazards.

If all new nonfarm houses had to be connected to public sewers, the possibility of a health hazard would be reduced and scattering would be severely restricted. This, however, would be an undesirable extreme. The absence of regulation is equally undesirable. The balance between these extremes is important to agriculture.

An agricultural resources commission should assess the probable impact on agriculture of sanitary regulations, as well as subdivision regulations and building codes, and should help modify and adjust these regulatory devices.

Taxation of New Farm Real Estate Improvements Should Be Deferred For Five Years.

A zoning ordinance could label an area "for farming only," but this would not guarantee that the land would be farmed. Many other actions are possible that would slow or prevent urban penetration into farm areas, but such actions will be useless unless farmers are able and willing to continue farming.

The Commission believes that one of the most effective steps the Legislature could take to encourage farming would be to exempt new farm real estate improvements from taxation for a period such as 5 years. The law should apply only to bona fide farmers and to improvements made for farming purposes. At the close of the period, the new improvements should be placed on the active tax roll at the market value they then have as part of the farm.

Such legislation would incur minimum risk of facilitating and encouraging purely speculative activities. It could be easily and effectively administered. Moreover, it would involve only delaying the taxation of new property values, not modifying of present values or taxing procedures.

Provision Should Be Made for Creating Zones in Which Agriculture Would Have Priority Over Other Uses.

As presently used, agricultural zones are commonly residual areas left after residential, commercial, and industrial zones have been selected. It often is implied that the agricultural zones eventually must come under more strict regulation.

The Commission recommends that a type of zone be created in which flexible and aggressive farming activities are specifically permitted and will be allowed for long enough after any zoning change to protect the farmer's investment. Nonfarm uses would be permitted in these zones, but nonfarm persons locating there would do so with a clear understanding that farm uses have priority under the zoning ordinance.

Legislation Should Be Considered That Would Provide for the Creation by the State of Prime Agricultural Districts.

The Commission recommends that legislation be considered under which the State would designate "prime agricultural districts" where selected modifications of certain laws would apply. The districts would consist of areas where farms are highly productive and will remain so if the land is not converted to other uses.

Within the agricultural districts special procedures would be required before the right of eminent domain could be exercised. These procedures would assure that efforts are made to avoid disturbing farms when roads, dams, power and pipe lines, and similar structures are built.

Bona fide farmers in the prime agricultural districts could contract with local governments to limit the use of their land to agriculture for a specified period in return for a farm tax assessment privilege. Section 247 of the Municipal Law now permits agricultural use contracts at the option of land owners and local governments. It also provides for assessments that take such contracts into consideration. The possibility visualized here would require local governments to offer such contracts to farmers in the prime agricultural districts.

It would also be possible to prohibit by State law any local ordinances that would limit livestock densities, control manure disposal beyond necessities of health, regulate farm building construction beyond basic safety requirements, or otherwise restrict farming in the interests of promoting other uses within these prime agricultural districts.

New York's agriculture:
- —$1 billion worth of farm products annually
- —ranks 14th among 50 states in total value of farm products
- —farm real estate value $2 billion
- —total farm investment $4 billion
- —2500 firms in the agricultural chain, selling $800 million worth of goods and services to New York farmers.

Promote Increasingly Effective Management and Use of the State's Water Resources, Including the Development of Additional Irrigation.

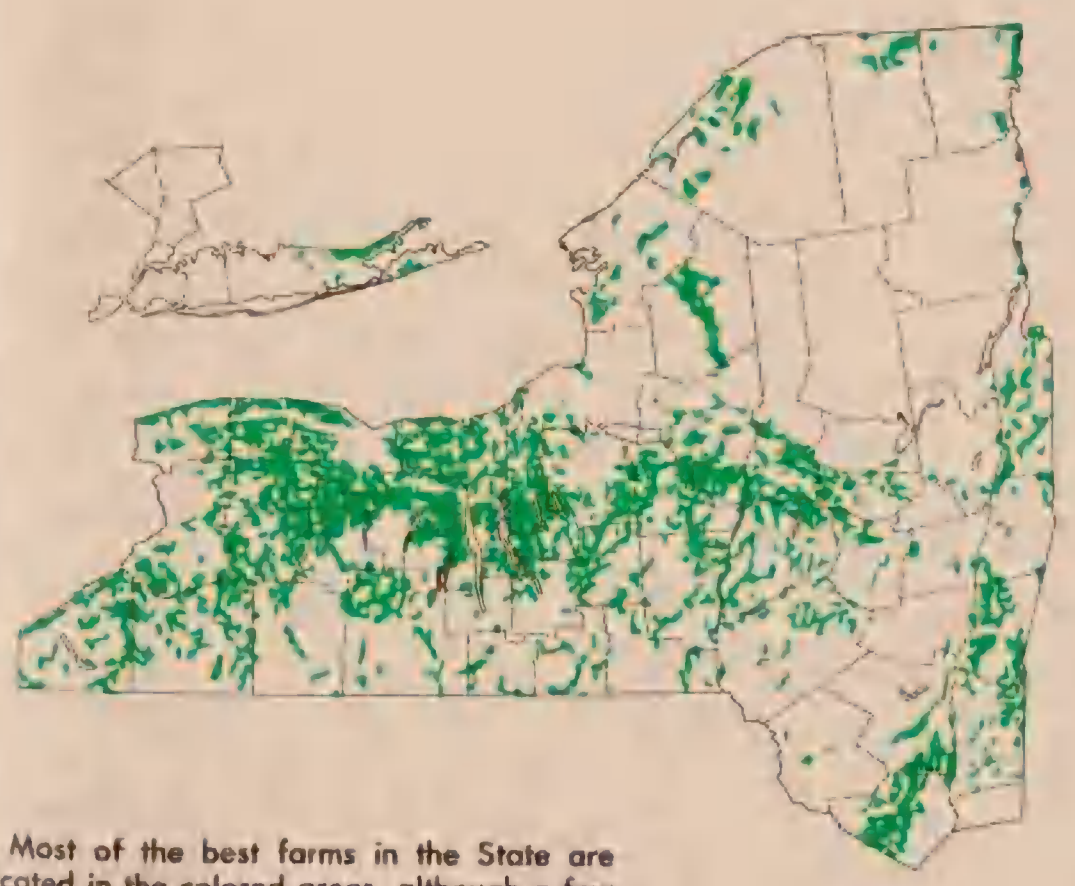
Irrigation is especially important for the production of high-value fruits and vegetables. It is expected that out-of-state competition in fresh and process vegetables will be such that as much as half of the vegetable acreage in New York must be irrigated (presently 20 percent) within the next 10 to 15 years.

Advantages

Irrigation increases yields . . . normally as much as 100 percent for some crops . . . but more importantly, irrigation improves quality, facilitates the use of machine harvesting, and makes it possible to schedule maturity to correspond with fresh market demands and processing plant programs. Swift, relatively inexpensive transportation and modern methods of food preservation have lessened the competitive advantages New York farmers once had. Growers outside the State can penetrate New York markets easily with their irrigated produce. Processors are more often limiting their purchases to products that have been grown with irrigation and are moving their plants to areas where these products are available.

The Barge Canal occupies a

(Continued on page 18)



Most of the best farms in the State are located in the colored areas, although a few are too widely scattered to be pictured on a map of this size.

Sick pay for farmers



New Agway Cash Supplement Hospital Plan pays like a salary when you need it most.

$105 per week ($15 per day) to any Agway farmer-member or wife while in the hospital.

26-week protection costs only $30 a year per person.

No medical examination by enrolling now.

Any Agway member can enroll in the Cash Supplement Plan before the start of the program on March 1, without a physical exam or health statement. After March 1, an examination or health statement is required of all members whether presently insured or not. Act now. Don't be frozen out of this plan. Take advantage of this "open door" enrollment period.

Enroll now for immediate coverage on March 1.

For presently insured members. Anyone currently enrolled in Agway Members Insurance will be covered March 1 for both illness and accident by signing up now for this new Agway Cash Supplement Plan.

Members not currently insured by Agway can enjoy the same Cash Supplement Plan at the same low cost by signing up now. Accident coverage will be effective immediately on March 1. Illness protection will be effective June 1 if you enroll before March 1.

Tax-free checks come to you.

Pay medical bills, hired help, house bills—use the money any way you choose, because the $15-per-day check ($105 weekly) pays you, not the hospital.

Even if you never have to run your farm from a hospital bed, this $15-per-day cash supplement is worth having. It protects you, your wife, and your savings when you need cash most. And the cost is low—only $30 per person per year—far less than you'd pay for this protection if you bought it elsewhere. You'll save 30%-50% or more by participating in a true group plan that is operated exclusively for the benefit of Agway farmer-members. Protect yourself and your wife for only $60 per year.

Whatever insurance program you now have, this Agway Cash Supplement can strengthen or broaden it inexpensively. The plan is available to all Agway members under 65 (Medicare age) whether or not they are Agway insured now.

You must, of course, be out of the hospital on the day your Agway Cash Supplement Plan becomes effective.

Don't take chances.

Fill out the coupon below, and get complete details on the protection you need to safeguard your savings and your farm. Why not fill out the coupon right now?

This literature is merely intended to give you a brief description of the Agway Cash Supplement Plan. A complete description of the benefits and all provisions of the program are subject to the group policy issued to the Agway Inc. Group Trust.

MORE INFORMATION COUPON Agway

Agway Inc., Dept. #M1, P. O. Box 1333,
Syracuse, N. Y. 13201

☐ Send me a free brochure, "Sick Pay for Farmers."
☐ Send me free brochure telling about Agway's basic Members Insurance program.

Name

Address

City **County** **State** **Zip**

All the baling capacity you need ...the low-cost 24-T probably has it (if not, bigger John Deere Balers do)

Some balers are said to have an output of 17 tons of hay an hour. But did you ever try to stack hay on a wagon bouncing along at 13 mph? An impossible baling speed! Yet that's how fast you'd have to go to bale 17 tons an hour in an average 1½-ton-per-acre crop, cut with a 7-foot mower.

Baler-capacity claims are good for short test runs. But not over the long haul. That's why John Deere Balers don't carry capacity "ratings." We only say that over a season—the run that really counts—ours won't be outdone. For logical reasons.

Quality construction. The economical 24-T is designed to go and keep going . . . at a steady, top-working pace all season long. Mainly because it is thoroughly tested. From the time the raw materials reach the factory to complete assembly. Purposely to guarantee John Deere quality and long baler life.

A heavy all-welded steel frame, sturdy stamped-steel bale case, high-gr[ade] bearings, slip-clutch-protected drive, high-carbon steel gears make this b[aler] tougher than the work it's required to. And its precision-knotter won't leave "fit to be tied" with constant misses.

Capacity's everywhere. Not just h[ere] and there, but all over . . . probably m[ore] than you'll ever need. From the ex[tra] wide, 53-inch pickup, to the large [bale] ing auger, right on through bale [case] . . . every part moves your crop fast.

le Ejector tilts for bull's-eye accu-cy. On sharp turns, sidehills. This ling Ejector puts 'em where you want because you aim it. Hydraulically. the tractor seat. There's no costly required . . . it's driven from the baler shaft. Even pitches 80-pound bales a pro. And Ejector disengages when "tossing." There's no useless move-nt, no continuous wear.

r extra-tough assignments try the vy-duty, deluxe 224-T. The same top-notch 24-T features with even more added. Like curved pickup teeth for exceptionally clean pickup. A V-belt-driven pickup to eliminate the need for slip-clutch or shear-assembly protection. And a Multi-Lube which provides push-button lubrication of the knotter area.

Regardless of the model you choose you'll get a baler that's fast, dependable, and built to last. Both available at your John Deere dealer's . . . both available through his Credit Plan.

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Dates to Remember

Feb. 1-2 - Annual University of New Hampshire Poultry Health Conference, Memorial Union, University of New Hampshire, Durham, N.H.

Feb. 4-7 - 53rd Annual National Dairy Council Meeting, Richmond, Va.

Feb. 5-7 - State Horticultural Association of Pennsylvania Annual Meeting, Yorktowne Hotel, York, Pa.

Feb. 6-8 - Annual Meeting Weed Society of America, Jung Hotel, New Orleans, La.

Feb. 15-16 - 30th Annual National Farm Institute, Des Moines, Ia.

Feb. 22 - 4-H Cherry Dessert Contest, Midtown Plaza, Rochester, N.Y.

Feb. 25-27 - Annual Open Technical Conference, Sprinkler Irrigation Association, Brown Palace Hotel, Denver, Colorado.

Feb. 27-28 - Second Annual New York State Processing Vegetable Conference, Agricultural Experiment Station, Geneva, N.Y.

March 6 - New Hampshire Fruit Growers Association Annual Meeting, Highway Hotel, Concord, N.H.

March 17-20 - National Farmers Union Annual Meeting, Leamington Hotel, Minneapolis, Minn.

March 19-21 - Annual New York Farm Electrification Council Conference, Cornell University, Ithaca, N.Y.

March 21 - Annual Agricultural Leaders Forum, Cornell University, Ithaca, N.Y.

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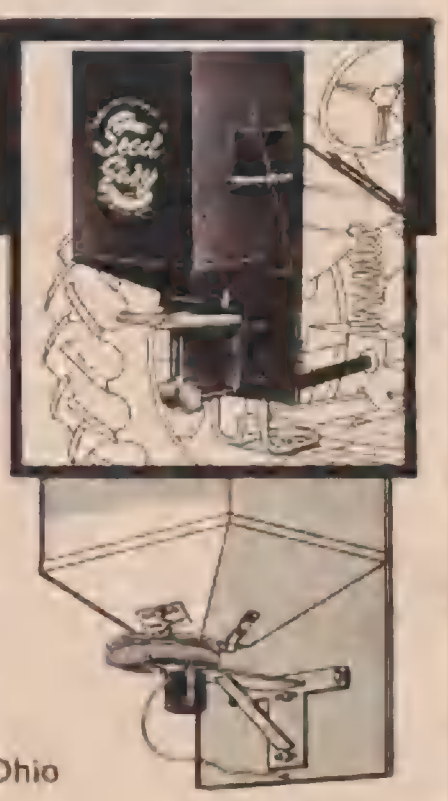
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MANURE DE-ODORIZED

Chastity Hill Farm, Ligonier, Pennsylvania, has announced the availability of Dehydrated Cow Manure Pellets. They are packaged in 10 and 25-pound plastic bags and sold at farm or garden supply dealers . . . prices beginning at 80 cents per 10 pounds. Bulk quantities are also available.

For information, write to: Chastity Hill Farm, Star Route South, Ligonier, Pennsylvania 15658.

At the last NEPPCO Trade Show, one of the most popular displays was the Converta-Dryer. This is a waste processing and manure drying machine using a 500,000 BTU oil (or gas) fired heating unit to reduce the moisture content of waste materials. The Model #500 is stated to have capacity to handle fresh droppings from a 20,000 bird cage unit in an eight hour work day.

The cost was quoted at $5,950 FOB Allendale, Michigan. Fuel cost to produce a ton of finished product (dried manure for fertilizer) was estimated at $8.00. Remember that drying the manure is only one part of the problem; profitable sale of the finished product is another.

For literature and other information write to Dryer Corporation of America, Allendale, Michigan 49401.

Earmarked – The advisory board of the Pennsylvania Apple Marketing Order has earmarked an initial allotment of $12,000 for promotion of fresh and processed apples . . . $5000 to the National Apple Institute for the promotion of fresh apples, $7000 to the Processed Apple Institute to promote apples sold for processing.

Apple growers with 500 or more trees each pay the assessments, which are based on declarations they make four times yearly on quantities of apples sold.

Century Farm Awards – At the 136th annual meeting of the New York State Agricultural Society, three farms that have been in the same families for more than 100 years were cited by Governor Rockefeller. This year's recipients are: The Porter Homstead, Barker, Niagara County, Mr. and Mrs. Burton O. Porter, owners; the Cronkhite Farm, Fort Plain, Montgomery County, Lynn J. and George S. Cronkhite, owners; and the Saunderskill Farms, Accord, Ulster County, Mr. and Mrs. John Schoonmaker, owners.

The State Farm-City Council presented their "Big A" award to Governor Rockefeller and chairman Clayton G. White of Stow for an outstanding job of promoting good relations between city and country by the Governor's Committee for Increased Use of Milk.

Speakers at the meeting included Chairman Robert Greig, Red Hook; Edmund H. Fallon, Syracuse, general manager of Agway, Inc.; Edward H. Smith, Ithaca, New York State Director of Cooperative Extension; Russell R. Billings, Buffalo, chairman of the State Commission on the Preservation of Agricultural Land; and Donald D. Hanks, Salem, widely-known dairy farmer.

GOLDEN NEMATODE

The Golden Nematode of potato has been found on one isolated, 55-acre field on a farm in the town of Prattsburg, Steuben County, New York.

This pest of potatoes was discovered on Long Island in 1941 and has been confined to a reducing acreage there. Subsequent infestations have been found and confined in Newfoundland and on Vancouver Island, Canada.

The Golden Nematode is a soil-infesting organism attacking the roots of potatoes. In heavy European infestations it seriously reduces the crop yield, but it in no way affects the eating value of the potato itself.

The New York State Department of Agriculture and Markets, in cooperation with the United States Department of Agriculture, is taking measures to suppress this isolated infestation.



The New York State 4-H Dairy Cattle Judging Team ranked fourth among 36 competing teams at the National 4-H Dairy Cattle Judging Contest in Columbus, Ohio. Left to right, standing: Daniel McGarr, King Ferry; Larry Smith, East Concord; sitting: Warren Legacy, Burke; Professor Dennis Hartman, coach, Cornell University; and David Goodwin, Guilford. Warren and Daniel are Holstein breeders; David breeds Brown Swiss; and Larry breeds Jerseys.

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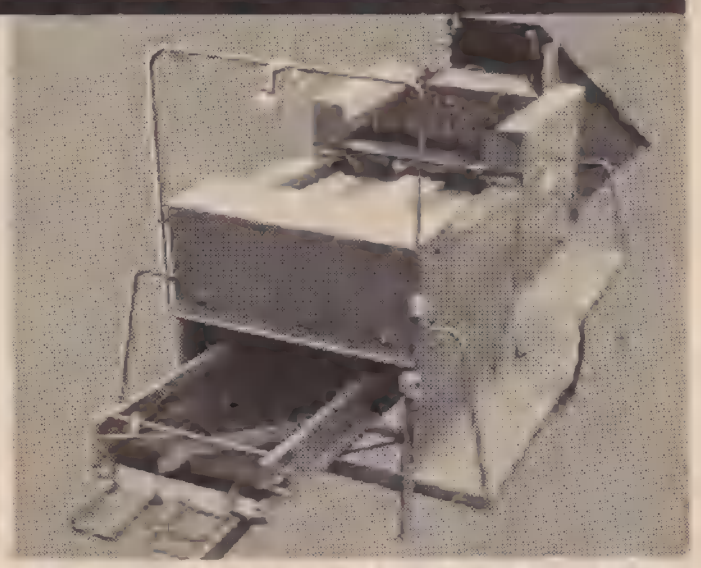
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'FINEST IN THE FIELD BECAUSE OF RESEARCH'

Drain

(Continued from page 11)

key position in the State's need for increased irrigation. The Canal and its tributaries constitute the primary potential source of added water for irrigation in the relatively dry, but highly fertile western plain of the State.

The full development of the irrigation potential of New York must be worked out through careful long-term planning by the Water Resources Commission with adequate agricultural participation. Some steps, however, can be taken immediately. The following are recommended:

1. The Barge Canal should be declared a multi-use water resource for future long-term planning.

2. No further consideration should be given to transferring the Canal to the federal government.

3. The water-use treaty between the United States and Canada should be altered specifically to permit agricultural use of international waters.

4. When the State acquires property by eminent domain that separates water sources from other parts of a parcel of land, provision should be made by the State for transmission of water to the separated part of the parcel. Appropriately spaced conduits should be placed under State highways in such cases, even though the water source is not presently being used.

5. In addition to planning, the New York State Water Resources Commission should be charged by the Legislature with the responsibility to develop and allocate water resources. As a part of its responsibility, and on the advice of an agricultural land commission or similar body, the Water Resources Commission would make appropriate quantities of water available for agriculture. Either under its present authority or under new legislation, the Commission should provide irrigation permits that are attached to land so long as it remains in agricultural use.

The Real Property Tax Law Should Be Amended To Improve Arrangements and Procedures for Assessing Real Property Throughout the State.

A large percentage of the farms in New York State are overassessed compared to other types of property. Evidence assembled by the State Board of Equalization and Assessment shows that average assessed values of farms are a higher percentage of market value than other properties in nearly all townships of the State. This evidence also shows that farms have been overassessed for many years.

The overassessment of farms appears to be the result of three tendencies. First, assessors tend to undervalue nonfarm land when the demand for residential, commercial, and industrial property is rising, as it has been for over 20 years.

Second, assessors tend to undervalue new structures when the cost of construction is rising. More nonfarm structures are new than farm structures.

Third, it is difficult to know when farmland should be assessed as building lots. In some instances, farms are so assessed long before it actually would be possible to sell them in this form. The Commission has been impressed, however, by the care many assessors exercise to avoid this tendency and by the efforts made by the State Board of Equalization and Assessment to guide assessors in their judgment of these conditions.

The State Board of Equalization and Assessment has reported that approximately 95 percent of all New York farmland is overassessed. This overassessment is the most important source of tax difficulty for New York farmers . . . more important than the high taxation of farmland that could be sold for urban uses but should be kept in farming.

Correcting Steps

To reduce general tax inequities that discourage farming, the Commission makes the following specific recommendations:

1. A legislative act should be passed to improve the quality of local assessments. It should provide for improving the skills of assessors, giving them greater job security, and assuring them adequate pay.

An assessment improvement bill was introduced in the 1967 session of the Legislature; the Commission recommends that this or a similar bill be passed at an early date.

2. Legislation should be passed which would enable a farmer who believes he is unfairly assessed to request an appraisal by the State Board of Equalization and Assessment. This law should also permit use of this appraisal in court proceedings against a tax district.

3. The Legislature should create a commission to evaluate the real property tax as it relates to various parts of the economy

(Continued on next page)

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Experience with Thimet® on 350 acres of spring and fall beans has proven to Joe E. Bernard, manager of the Carlton Byrd Farms, Parksley, Va., that this soil insecticide provides long-lasting systemic protection against a multitude of insects. / "Before we used Thimet, we had to maintain a strict 7-day spray schedule or we wouldn't have gotten a crop at all. Thimet has certainly taken a lot of pressure off." / Other bean growers throughout the country get continuous control of beetles, mites, lygus bugs, aphids, thrips and leafhoppers. There is no effect on flavor. No residue in the harvested crop. No danger to beneficial insects. No soil compaction from repeated use of spraying and dusting equipment. No drift, wash or blow-off. Thimet moves up from the soil to protect the entire plant from the inside! And by eliminating disease-carrying insects, Thimet also helps stop bean mosaic and curly top. / Handy 10-lb. bags make it easy to use recommended rates of Thimet with a granular applicator in the row at planting time. Order Thimet from your dealer today! / Before using any pesticide, stop and read the label.

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FRUIT



Dwarfs – Professor Norman Childers of Rutgers University visited his colleagues in the Keystone State and reports as follows:

Penn State experiments with dwarfing rootstocks show Golden and Red Delicious on EM-IX, supported on a grape-type trellis about 6 feet high, looking good. It's a system lending itself more readily to increasing mechanization . . . considered by many to be the wave of the future in apple growing. Major drawback is high cost of establishment of this kind of orchard.

Size-control stocks should be budded with the scion variety at least a foot above the ground in which the stock is growing. This allows planting the grafted tree six inches or more deeper than the stock growing in the nursery, and still prevent the scion from taking root and thereby nullifying the influence of the dwarfing rootstock.

MM-106 appears to be one of the best stocks for most standard apple varieties . . . with recommended spacings of varieties on this stock being (in feet) 16×8 for Rome, Jonathan and York . . . 18×10 for Golden Delicious and Delicious . . . 20×12 for Stayman and McIntosh.

Fertilization of unmulched compost trees at Penn State consists of one-half pound of 10-10-10 per year of tree age.

Anyone interested in obtaining a copy of "Apple Trees — Dwarfing and Propagation" should write to Horticulture Department, Room 303, Michigan State University, East Lansing, Michigan 48823.

Bird Netting – This past season, TORON netting has been used to protect small fruit from bird depredation from New Hampshire to Wisconsin. Both home gardeners and commercial growers used the material, as well as many government installations. It comes in widths of 25 or 50 feet, and weighs in at 200 square feet per pound.

Some growers draped the netting directly over trees and berry plants. Other growers preferred to use it as a canopy, in which case poles were put in the ground on 20 to 30 ft. centers and connected by No. 10 wire. Then the netting was stretched over the area and down the sides, being fastened to the ground by putting dirt or other heavy objects on the lower edges.

For more information, write Dept. AA, J. A. Cissel Co., Inc., 120 East 34th Street, New York, N.Y.

Drain

(Continued from page 18)

and as its position in the total tax structure is being changed by sales taxes, income taxes, and other levies. The commission should also estimate the consequences of granting rights to selected property owners to be assessed on the basis of the value of their property in its present use rather than on the basis of its market value.

Further Study

The Commission recommends that no law be passed at this time to make a general grant of the privileges of present-use assessment to any class of land owners in the State. It is convinced that such a law would create problems for assessors and local governments. The Commission did not have the resources to determine conclusively whether the benefits of state-wide present-use assessment would outweigh the problems such assessment would create.

The present-use assessment of farmland in New Jersey has brought problems to assessors and local governments in that state. Experts there consider it only a stopgap measure, even though taxes on farmland average much higher than those in New York. New Jersey and other states have found it difficult to provide effective incentives to farmers without also granting costly privileges to speculators and hobby farmers holding land that is obsolete for modern commercial farm use.

The Commission recommends that passage of a farm investment incentive tax law, a prime agricultural districts law with restricted present-use provisions, and an assessment improvement law be given priority over consideration of a statewide present-use assessment law. It recommends that the possibilities of present-use taxation be a subject for investigation by a real property tax commission.

For a single free copy of the Commission's full report, write to: Commission on Preservation of Agricultural Land, Box 23, Roberts Hall, Ithaca, New York 14850.



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Gayway Farm Notes

by HAROLD HAWLEY

SUBSTITUTES

Looking back over the long history of the conflict between dairymen and industry over butter and margarine, it now appears that we dairymen did most everything wrong, and probably deserved to be on the losing team because our strategy was wrong.

Of course, many dairymen are still not willing to incorporate into butter the things that have made margarine easier to spread . . . cold or warm. We think the "butterine" idea may be long overdue, but that is not what this comment is about. What we started out to say was that in spite of all the mistakes we made relative to fighting margarine there was one colossal blunder we did not make. We did not call oleomargarine filled butter, or substitute butter, or artificial butter.

Why, oh why are we starting right out calling the new vegetable oil whole milk substitute "filled milk"? It's not legal for the manufacturers of it to call it milk, yet every dairy co-op, dairy Extension meeting, dairy magazine article glibly refers to it as "filled milk". I'd like to see us strike that name from our vocabulary and refer to this product by some name . . . most anything else ..without the word **milk** as part of the name.

A COMPLETE CYCLE

Some thirty years ago a New York farm boy migrated to Indiana to try to learn something about farm management in the Corn Belt. Having been indoctrinated by the long list of ingredients recommended by Cornell and used by GLF in their dairy rations, that farm boy was horrified at what dairy cows were being fed out there.

There were some variations, but mostly they got rolled oats, cracked or coarse-ground corn, and soybean oil meal. This seemed to be a logical choice for these dairymen since they raised all of these crops. Also, surprisingly enough, the cows seemed to be doing real well on that simple ration. Of course, with his background the New York boy was sure they would have done a lot better if they were fed a ration featuring a long list of ingredients.

Now, with the advent of high-moisture corn, what are some New York dairymen feeding? You guessed it . . . corn plus a protein featuring soybean oil meal, distillers, and a few rolled oats. We've almost caught up with those Indiana dairymen after 30 years . . . and for the very same reason. With a silo full of high-moisture corn, the cheapest way to get the protein into the gals is to buy it and as little else as possible.

Of course, a lot of free choice minerals must be offered with this kind of a feeding program, because with a 30% protein being fed low producers just aren't getting much grain except the high-moisture corn.

Another little notion that many of us have had also went into the discard with this program. Pellets and milking parlors were supposed to be going steady, but we are now finding that ground feed will also work through the feeders. Oh, it may take a little more manual moving of some of it in the storage bin, but for a saving of close to $100 a week we figure we don't mind a few minutes shoveling every 3 or 4 days.

BETTER THAN HANDS

By now we are pretty much reconciled to the notion that for anything we can do a machine can probably be designed to do it better. We've all seen egg graders replace human hands, with better results and less breakage. Your wife's dishwasher, because of the hotter water it uses, does a better job of dishwashing than most people can do by hand.

The latest machine to get the Gold Star for performance superior to that performed by the man it displaced is the fence post driver. We've had one for some time, but not until lately did we fully appreciate what a lot better fence it builds than we ever did with a bar and mall.

It's not because it gets posts in so much farther (oh, maybe several inches if the ground is hard and dry). It's not even because the post fits so tightly, not having been driven into a too-big hole already there. The real reason why a tractor-mounted fence post driver builds better fence is because it drives so many **more** posts!

Let me explain. We recently checked the fence around a large cornfield into which we were going to turn a bunch of heifers to feed off the cornstalks and ryegrass. Formerly, with a bar and mall and a couple of posts on our shoulder we walked along and checked all the posts already there. If a post was too bad it got

(Continued on next page)

replaced. The harder the ground and the farther it was back to a supply of additional posts, the fewer posts were needed! If conditions are bad enough one can talk himself into believing that almost no replacements are needed.

Now we move in with a tractor-mounted driver. It's so easy to do that wherever an old post is a little doubtful we just sock in a new one. The result is that when we finish the fence is truly solid. It's a tribute to mechanical innovation, and to the ambition of fence builders as long as they can do it the easy way.

PLANNING

We've always been convinced of the desirability of having a plan of work and then working the plan. Sometimes, however, it seems futile to plan.

This fall we had decided that as soon as we could get the corn off we would get a good chunk of fall plowing done so as to speed things up next spring. We don't normally do much fall plowing for several reasons; we want winter heifer pasture (corn stalks) and we want a place to spread manure and a lot of our land would wash if fall plowed.

However, as we have moved toward more corn acreage, it becomes pretty tough to get over that much ground fast enough to have best plowing and planting conditions in the spring. Some fall plowing, therefore, was indicated. Fine, so far as it goes, but this past fall in common with a lot of others we were still trying to finish corn picking when we should have been plowing.

Looks like we will either have to catch an open spell in the winter, if one happens to occur, or do it all next spring the same as usual. It was nice to have a plan!

SOFT SPOTS

I once heard a very respected business leader comment that it was getting tougher and tougher in the business world to find a "soft spot" . . . meaning a situation where one could move in and make a quick bundle before competition got too keen. Said he, "Most such opportunities have already been discovered by others, and competition has moved in and taken away the real windfall that the first man to enter that situation may have had". This is probably true in the established fields, but certainly a lot of bright young men are finding the proverbial pot of gold by being first in some of the new space age industries.

His words came to mind at a meeting of several farm leaders the other night. They were discussing opportunities in agriculture particularly for them. This was a group of large cash crop farmers in the Cayuga, Seneca, and Ontario County area. There are several alternatives on many of their farms. They can, and many of them do, grow some or all of these crops . . . corn, sweet corn, small grain, hay, snap beans, dry beans, peas, sugar beets, and table beets.

Their comments were to the effect that wherever they turned there were already a lot of good producers supplying adequate amounts of the various crops, leaving no situation where a fellow could move in and make a killing. Mostly, they said, any soft spots in agriculture were gone. Someone had already moved in to fill a need.

I suspect this is largely true. Many growers who switch from enterprise to enterprise simply don't recognize that there are good and bad years for most crops (and livestock), but that only the most skillful, efficient men on good, well-adapted soil are able to make more than good reasonable returns over a period of years. Many of those who jump in and out are merely responding to the greener grass over the fence. With the investment required for dairying these days, there won't be many in and outers. Once a man sells out, he will most likely stay out. Crop farmers can, of course, do more switching around.

The coming of a new crop to an area would seem to offer new opportunities, and maybe even some soft spots. Snap beans seemed to be a case in point for a spell. Some thought sugar beets would too, but such has not been the case. Some think that soy beans might have a bright future here in central New York. It is too soon to tell on this one yet.

In general, as in industry, it's pretty hard to find a really soft spot in agriculture where one can make it big and fast. Best we keep looking, though, because it is of such things as dreams, experimentation, innovations and change that progress and profits are made.



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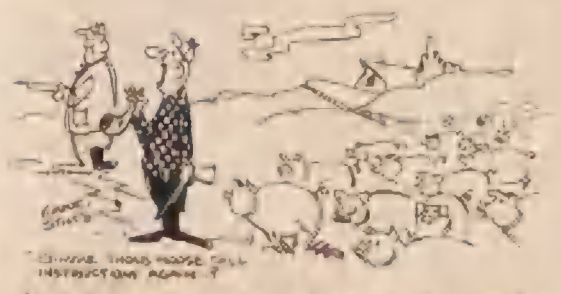
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The author is a practicing veterinarian at Copake Falls, New York



Doc Mettler Comments

On FOALING

FEBRUARY brings our worst weather here in the Northeast, but it also brings the first faint hope of spring. Perhaps it is only the sound of the water dripping off the eaves, or the way a crow caws early in the morning, but deep inside a man can feel that under the snow lies a whole new generation of life waiting to burst forth at the first opportunity. The plant life will have to wait, but already a few newborn foals have arrived, giving evidence that a new generation of horseflesh can't wait for the warm April and May rains.

No Exact Number

There is no exact number of days a mare has to carry a foal from the day of breeding to the day of foaling . . . 340 days is a good average, but a mare may deliver a normal foal days or weeks over or under this figure. Many mares show heat and are bred two or three times after the first breeding while actually pregnant from the first breeding. Others may have been bred after the first breeding, but the date not set down, resulting in what seems an unusually long or short gestation period.

A few days before Christmas I checked a two-year-old mare at a trainer's stable and found her to be five months pregnant. The owner had sent her to be trained to race, and of course she was supposed to be open . . . somewhere, somehow, she got mixed up with a stallion. The trainer spotted her "bellying down" the first day he saw her, and suspected she was pregnant.

What I am trying to bring out is that what you see with your eyes is important, and you should rely on this as much as the gestation tables. On the other hand, if your presumably-pregnant mare does not appear to be pregnant, have your veterinarian check her so you won't be wasting time watching her for nothing. A mare checked pregnant at 45 days in June could lose a five-months foal at pasture in early fall and never show the slightest indication that anything had happened.

Symptoms

A few weeks before foaling your mare should start to "make bag," that is to say her udder becomes larger. Again, since the only thing certain about a mare is that she is uncertain, an occasional mare will make up no udder at all and suddenly foal. About 12 to 24 hours before foaling the mare's teats will "wax," that is, a yellow honey-like substance will leak out and stick on the ends. Usually about 12 hours before foaling milk will actually drip or spray from the teats. Of course, there are exceptions to this. Sometimes a mare will "wax" two or three times a week apart before foaling; other times one will foal without waxing.

Most mares foal at night when everything is quiet. A few hours before foaling she may show symptoms of a mild colic, looking at her side, sweating, pawing, and pacing the stall. To be sure this is not true colic, offer her a little feed or hay. The foaling mare will eat a little, the mare with true colic will not.

Before your mare gets to this stage, if she is going to foal inside during the colder months of the year off pasture, you should have been giving her a bran mash once a week (four quarts of bran soaked in hot water and a small handful of salt).

The first thing she should be offered to eat after foaling is the bran mash, and if she's been getting it once a week she will be used to it. This will act as a mild laxative to empty the bowels and keep the mare from getting true colic from impaction after foaling. A couple of pails of warm water after foaling is good, too, if the mare will drink it.

Preparations

Before the foaling date is due, provide yourself with a large (at least 14×14) foaling stall, with solid board walls that have no projections. There should be a light available in the stall, and a place to plug in a heat lamp to warm the foal if the weather is very cold when the foal is first born. The mare should have been wormed while pregnant and given permanent tetanus vaccination. Her shoes should have been removed.

You should also have on hand a clean bucket, mild soap, tail bandage, and a mild antiseptic to disinfect the foal's navel. Your veterinarian can supply you with this. He may also want to leave you a sterile syringe with tetanus antitoxin for the newborn foal, and perhaps some antibiotic mixture to use on the new foal. You may also need on hand an enema bag and tube, since some new foals need an enema at one day of age if their bowels do not move by that time.

A few weeks before the foal is due check to see if your mare was sutured (Caslick operation) after breeding. If so, your veterinarian can cut the vulvar opening again

(Continued on next page)

a week or so before she foals. By the time she is ready to foal your mare will appear "loose coupled" behind since her pelvic ligaments will be relaxed. Her vulva will usually be swollen and soft, making the opening which the foal is to pass through larger.

Watch Her

You should be able to observe the mare at foaling time without her watching you. She will start by getting up and down. Bandage her tail at this time if possible, and get out of the stall. Soon the water bag, a pink sack of membrane, will appear. When this breaks a large amount of fluid will gush forth. When this happens the mare will seem relieved and may start to eat and be quiet.

Soon after this, if not already, the foal's two front feet should show; next the foal's muzzle should show. If the foal's feet appear upside down, get the mare up and down a few times and they generally will turn sole side down. If not, they may be rear feet. If you are inexperienced, and the feet still appear upside down, you'd better phone your veterinarian and keep the mare walking and on her feet.

Wash Well

If one foot appears, or the muzzle appears with no feet, or if a leg seems to be over the foal's neck or head, wash her off well with warm water and a mild disinfectant, wash off your hands and arm with the same, soap up your arm, and examine her to see if the feet are where you can easily reach them. If you can, pull it or them back toward you. If you can't, keep her on her feet and call your veterinarian. Also call him if an hour passes after the water bag shows and no feet appear.

By now, if all is correct, the mare will start to "strain" in earnest, using her abdominal muscles to help force out the colt. If all is not correct, and you can't correct it, get her on her feet and call your veterinarian. It may take only a few seconds, or it may take up to an hour for the mare to deliver. Resist the urge to "pull" the colt till you are sure she won't have it by herself.

However, if rear feet are coming first and you can't get your veterinarian, keep her walking as long as possible so she will have a fast easy delivery when the time comes. Leave her alone for a few minutes, and when she starts help her all you can, pulling down, and get the foal out as rapidly as possible once she starts. Often these backwards foals are dead, because the mare stops to rest before pushing the shoulders through, and at this time the navel cord snaps and the foal actually drowns with its head inside the mare.

Once the foal is out, make sure there is no membrane covering the nostrils, disinfect his navel, and slide the foal around so the mare can lick him . . . and get out of the stall again. Leave her to rest, except for offering her warm water, and hope she gets rid of the afterbirth while still down. If the stall is cold, get a heat lamp rigged to warm the foal.

If in three hours the mare still hasn't cleaned, call your veterinarian and get his advice. If a mare doesn't clean in twelve hours she needs veterinary attention immediately. **Don't** wait for 72 hours to have a mare cleaned as you do with a cow.

Within twelve hours the mare should be given tetanus antitoxin and, if your veterinarian advises, an injection of antibiotics and perhaps vitamins and iron.

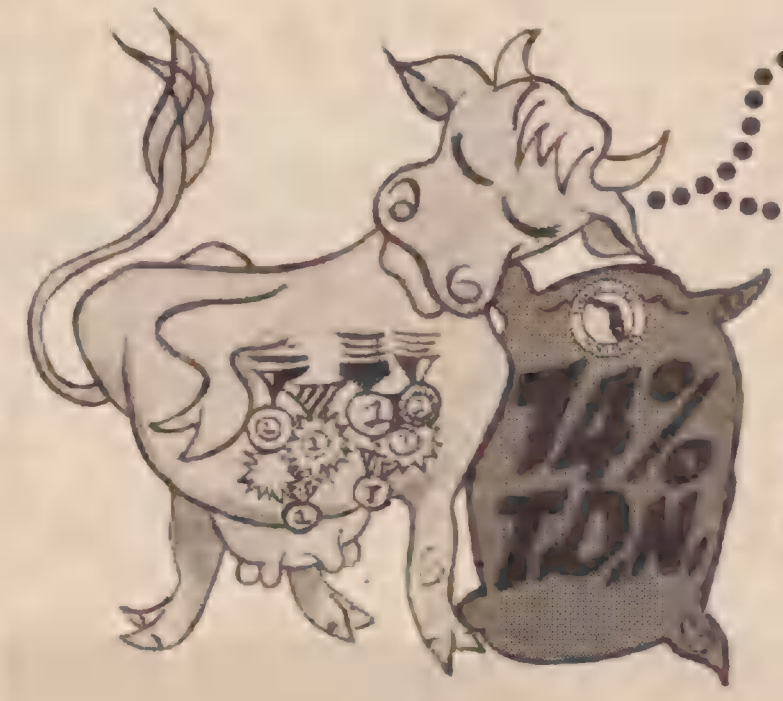
You have now watched your first mare foal and you are "experienced." Of course, you might watch your mare every night for a week, then while you step out of the barn to get a cup of coffee at the house she will have it, lick it off, and clean all in fifteen minutes without a bit of warning!

Any other question you have you can ask your veterinarian when you have him come the next day to check the mare. Save the placenta, and ask your veterinarian to show you how to check it to make sure all of it is there and none left in the mare.

If the weather is good, the next day let her out for a little exercise in the yard with the foal. Of course, there are reasons you might not want her to be out, too, if she appears weak or the foal is weak.

Don't be alarmed if your new foal spends most of his time sleeping when not eating. After all, he is a baby. In fact, he will sleep sounder than any other baby animal. At this stage of the game there are many variables, and your questions can best be answered by your own veterinarian.

Seeing a mare deliver a foal and watching him get to his feet and in a matter of hours be playing in the stall is a great experience. That little long-legged fellow might be another Greyhound, or a great jumper or barrel racer some day. On the other hand, he may be just a youngster's pet, but you were there and watched him breathe his first breath. That alone makes him very important!



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AN EDIBLE SOYBEAN

by Amos Kirby
New Jersey Editor

It is here, an edible soybean. It can be frozen or canned as a fresh product, can be harvested dry, and promises to be a very important item of diet in protein-short countries.

It is named "Verde," was developed at the Delaware Experiment Station, and has been offered the trade.

It is adapted to the big soybean-growing area reaching from New Jersey westward, and in the south. Other advantages: it is resistant to fungal parasites that cause such destructive diseases as downy mildew, purple stain, and pod-stem diseases.

In the dry stage yields have been excellent, with a production of 25 bushels per acre; in the green stage for processing, yields have been 2000 pounds. According to H. W. Crittenden, associate professor at the Experiment Station, when frozen in the fresh, plump stage it makes a more attractive package than some of the green-seeded lima beans.

The supply of seed is still limited, but it is increasing. It offers a breakthrough in table use of soybeans, and is a start in the field of supplying a very good source of protein to people who have heretofore lived on a diet lacking this important food element.

MOUSE BAIT

Do you have a mouse problem? Do the mice turn down cheese?

Here is an idea from Frank Boys, University of Delaware, who specializes in agricultural chemicals. Instead of cheese use a fresh stick of chewing gum . . . no special brand recommended. Flavor makes no difference. Wrap the stick around the trigger, or attach to the device that springs the trap. Unchewed gum gives the best results . . . but chewed gum will work if it hasn't been chewed too long.

What about bubble gum? That might work. The authority adds, "If the mice get away with the bait, at least one could hear the bubbles breaking!"

FREE STALLS

Both dairymen and milk cows are voting in favor of free stalls. In the three county area of Cumberland-Salem and Gloucester today there are 23 free stall units in use, and three more in varying stages of planning and construction. It is estimated that existing free stall housing units now accommodate one out of every seven cows in the three-county area.

The benefits are many. The free stall provides the dairy animal access to any individual stall . . . and cows do have preferences. The cows are not confined at any time, being free to change resting locations, get a bite to eat and maybe a sip of water. Cows are no different from human beings.

Cows in free stalls also require less bedding, yet stay remarkably clean. The individual stall provides some privacy, and also affords protection from physical injuries that have happened in loose housing barns. Cows appear more contented in the free stall barns, seeming to take pride in ownership of this or that stall.

TOMATOES ON SOLIDS

John Pew, Burlington County grower, is advancing the idea that processors should buy tomatoes on the basis of solids in the fruit.

This is a factor that has rarely been given any consideration in establishing prices for processing. This grower believes that existing grades are out of date, and that new formulas should be established, including one in which the solids as well as color are important measurements of quality. Milk and other commodities are sold on the basis of solids and other factors, including butterfat, and some similar yardstick, he feels, should be established on tomatoes.

VACCINATION SCHEDULE

The new four-page schedule on laying flock vaccinations provides poultrymen with a simple system for keeping records on the major diseases that attack flocks.

It lists the eight types of vaccinations, when to apply the first and second . . . and the third if recommended. It also provides space for details on brand, date of vaccination, and name of the vaccinator.

Poultry specialists Drs. Ivan Kujdych and Frank Kingsbury at the Agricultural College are urging poultrymen to waste no time in bringing in birds to the testing laboratories on the first signs of any problem. Even the loss of one day can result in troubles that are difficult and costly to overcome.

CERTIFIED PLANTS

Planting a new bed of strawberries this spring? The recommendation of the New Jersey Small Fruits Council is to use only certified plants.

The Council, a non-profit organization working in cooperation with the Agricultural College, has varieties that have been certified as being free of red-stele and verticillium wilt. Those listed as being free of red-stele are marketed under the red tag. The second (which includes a broader classification) is marketed under a purple tag. The latter includes freedom from both diseases, trueness to variety, and rigid standards designed to produce vigorous and superior plants. The broad classification means that plants have been grown on soils that have been fumigated, and carry the certification of the New Jersey State Department of Agriculture.

Approved varieties are: Sunrise, Midway, Sparkle, and Jerseybelle.

Raritan (N.J. 857) is a new, main crop variety ripening in early midseason. It is listed as of excellent quality and a bright red color. The only problem is that it is not resistant to red-stele.

INCOME TAX REPORTS

In most instances the answer to whether farmers should prepare their own income tax reports is an emphatic "No." The New Jersey Farm Bureau tax and accounting service has found many instances where savings in taxes represents a substantial return on the investment.

The University of Delaware is advising growers in that state that one of the often-overlooked items is that of investment credit and depreciation.

Among items often overlooked are business travel, professional journals, legal and accounting services; also the farm's share of taxes, insurance, and auto expense.

The sale of real estate calls for expert advice. A party wanted to dispose of a farm to a son for $1 in fee. The attorney disagreed. He insisted that the farm be sold at its market value. The real benefit in savings on tax dollars would be the difference in capital gains if the land should later be sold at a much higher price.

A good tax consultant can be one of the best investments of the year.

PESTICIDES FREEZE

Herbicides, like other liquids, have a tendency to freeze, and their value can be lost if exposed below certain temperatures. Chemicals may crystallize out of solution at temperatures below 32 degrees. Here is a simple method to determine if this has happened:

Warm the products to 40 degrees or higher. Roll the drums or shake containers. If the crystals return to solution no harm has been done.

Chemicals have various freezing points. The following formulations do not freeze if stored in unheated rooms: low-volatile esters of 2,4-D, 2-4-5-T, 2,4-D plus 2-4-5-T (brushkiller), silvex, and the alkanol amine salt of DNPB.

SCS CHANGE

For the first time in Pennsylvania history, soil and water conservation planning will become a joint responsibility of rural and urban areas throughout the State.

State Agriculture Secretary Leland H. Bull says a new law "recognizes the mounting problems of soil and water needs for our expanded population, and strengthens the State's efforts to conserve these natural resources for all people, now and in the future."

Local boards in each of Pennsylvania's 64 conservation districts now will have seven members, instead of five as in the past. The new boards will include four farmer directors, two urban directors, and one county commissioner.

The membership of the State Soil and Water Conservation Commission also will be increased. The new Commission will comprise four farmer members and two urban members in addition to the Secretary of Agriculture, who serves as chairman, the Secretary of the Department of Forests and Waters, and the dean of the College of Agriculture at the Pennsylvania State University. District directors and Commission members all serve without pay.

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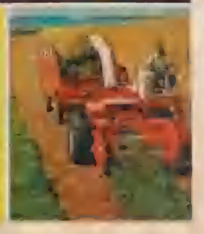
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Food For The Spirit



by Robert Clingan

"I Y'AM WHAT I Y'AM"

We are all familiar with the character Popeye, the Sailorman who gained strength through spinach and gave his all to defend his beloved "Olive."

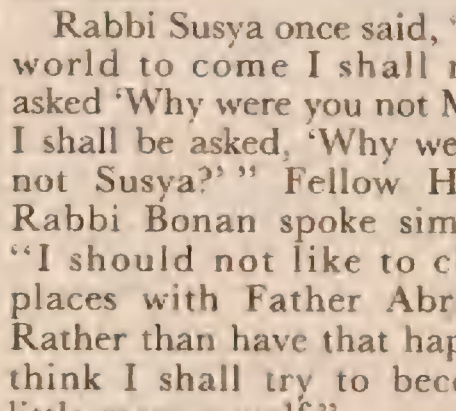
His theme song ... minus the toots ... was "I y'am what I y'am ... I'm Popeye, the Sailorman." He is really the hero of this meditation. Popeye had achieved a level of self acceptance that is essential to both mental health and human fulfillment. My own daughter once put it this way, "Even without love from others, one must love oneself."

It is strange, isn't it, how some people can accept so much ... hardship, anxiety, and disappointment ... but they cannot accept themselves. They can accept death but they cannot accept life when it means accepting themselves as they are. They can forgive anyone for anything ... but they cannot forgive themselves for a petty mistake or a wrong turn in the road.

In his fruitful booklet, "Prayer in the Contemporary World," Douglas Steere has brought to our attention two gems of rabbinical literature that speak to this need.

Rabbi Susya once said, "In the world to come I shall not be asked 'Why were you not Moses?' I shall be asked, 'Why were you not Susya?' " Fellow Hasidin Rabbi Bonan spoke similarly, "I should not like to change places with Father Abraham! Rather than have that happen, I think I shall try to become a little more myself."

Dr. Steere concludes with this statement: "I begin by laying aside self-hate or the wish to be someone else as a major act of disobedience, and a taking back of myself as a vehicle in all its inadequacies and frailty, as the 'poor thing but mine own' which I acknowledge and accept, and seek to put ever more at the Lord's disposal."



Purple Martin

The Purple Martin Capitol News is a monthly publication selling for three dollars per year, and sponsored by the Griggsville Wild Bird Society. Anyone interested should contact Miss Anna Fisher, R.D. 1, Christiana, Pennsylvania 17509.

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THE HEN long ago forgot the rooster, and it's a rare cow that can tell what a bull looks like. Now the equine species . . . that's horse to you and me . . . is joining the ranks of "The Artificials."

Beginning in the spring of '68, the Eastern Artificial Insemination Cooperative (formerly NY-ABC) of Ithaca will begin a pilot project in artificial insemination for horses in Eastern's service area.

It's become possible, through improved techniques developed by Eastern and other researchers, to freeze horse semen successfully. Frozen semen use has resulted in a 20 percent improvement over the usual 50 percent conception rate resulting from natural service. Other advantages of AI for horses include: enlarged availability of high-quality stallions, simpler servicing, disease prevention, and elimination of cost for transportation, boarding, and care of the stallion.

Breed registry associations will not accept AI progeny for **registration** unless breeding is done on the premises where the stallion stands, and with liquid (not frozen) semen. This parallels developments in the dairy and beef cattle breed associations, where in the early days AI for the bovine species met strong resistance. However, many horse fanciers see the advantages of AI, and many a top stable already uses the technique (with liquid semen) to prevent disease.

The mare has always been erratic in her reproductive mechanics as compared to cows; the horse has a 2 to 6 day heat period . . . and the time of ovulation therefore is hard to pinpoint. It's possible to inject a mare with a hormone, though, and be pretty sure of ovulation 24 hours after injection.

The stallion used to whinny derisively when he saw the AI technician truck rolling along the highway toward some dairy farm. But now he only gnashes his teeth . . . which puts him right in style in an age of protest! Sort of like the old buck sheep years ago, sadly listening to a radio playing that song, "There'll Never Be Another You" . . .

POPULATION EXPLOSION

by W. A. Cowan

A LARGE percentage of the horses in the country are grades or crosses . . . or purebreds that are unregistered. However, from the proportions which are registered purebreds it may be possible to obtain some indirect idea of what has happened to horse numbers generally.

When the data is combined for all breeds for which 1948 could be compared with the latest year the increase was from 26,041 to 117,552 . . . truly a population explosion in the horse world! There can be little doubt that the population explosion in grades and crosses has been going on at the same time, but no reliable figures are available.

Some question how long this rapid expansion in horse numbers can go on. Much will depend on the economy, local zoning regulations and promotional efforts of horse organizations and owners. We can be certain that people will have more time to enjoy pleasure horses. Such being the case, it would appear that horses will continue to be increasingly popular along with other participating sports and recreational activities.

NEW REGISTRATIONS

	Latest Yr. Available
American Albino	97(1965)
Am. Saddle Horse	3177(1966)
Appaloosa	12700(1966)
Arabian	4774(1965)
Hackney	839(1966)
Morgan	1629(1965)
Quarter Horse	54204(1965)
Shetland Pony	4738(1965)
Standardbred	9128(1966)
Tenn. Walking Horse	5168(1964)
Thoroughbred	19580(1966)
Welsh Pony	1818(1965)
TOTAL	117852

Recently-organized registry associations show that in 1966, the following numbers of horses were registered in these breeds: Connemara, 346; Gotland Horse, 32; Missouri Fox Trotting Horse, 710; and Pinto, 6541. In 1965, Pony of Americas showed 1068 registrations.

If you owned a gas station where else would you buy your gas?



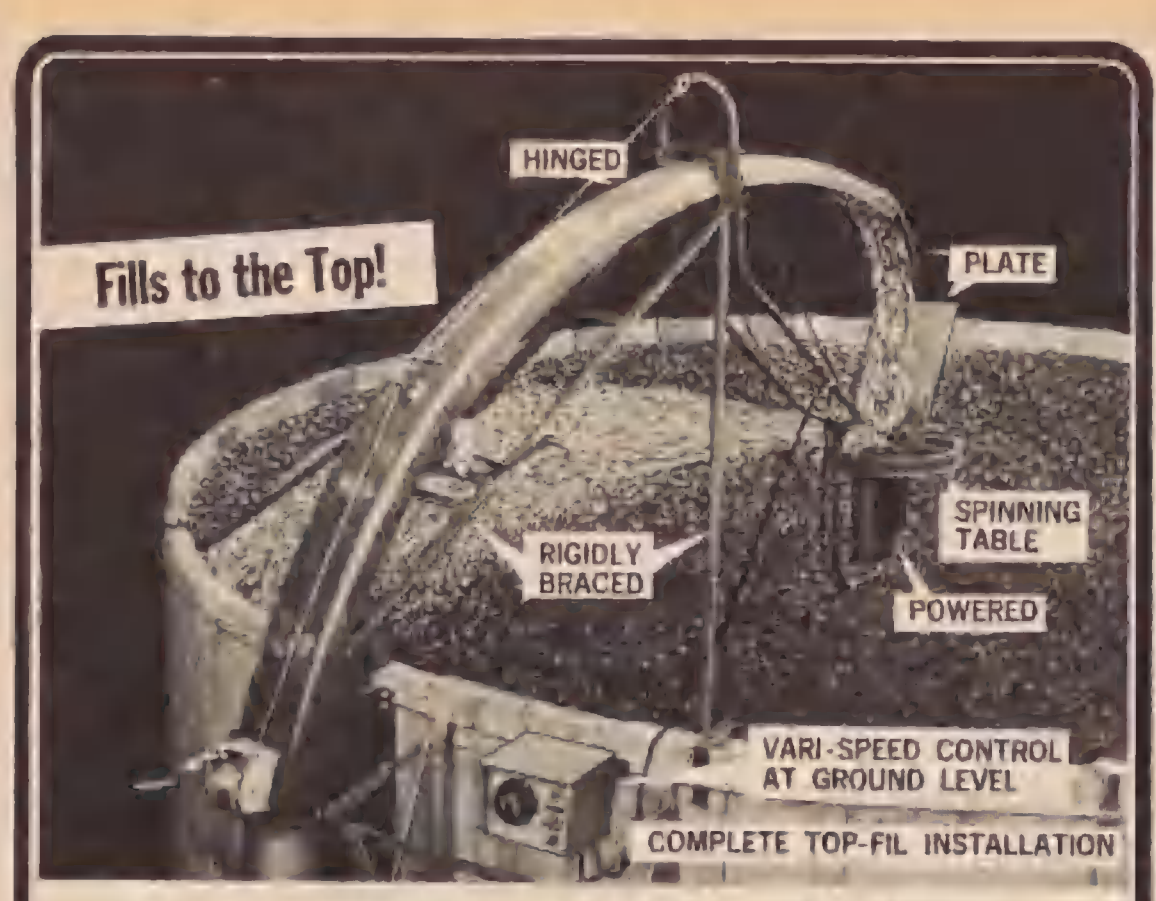
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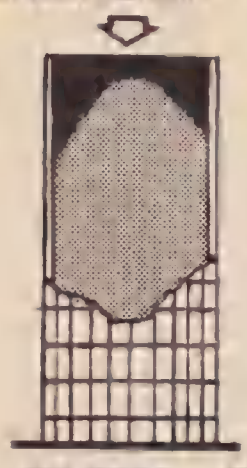
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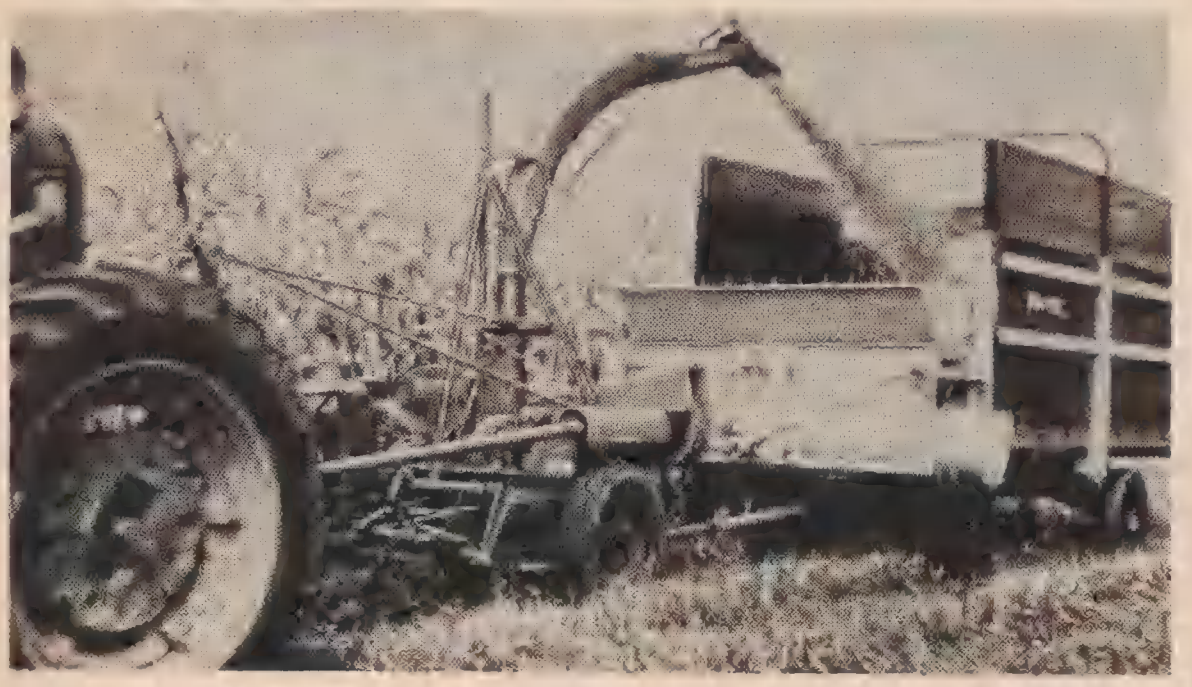
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Note plastic ventilation tube along peak of this two-layer plastic greenhouse.

FILMED GREENHOUSES

HERE'S information on plastic greenhouses from Cornell's Professor Raymond Sheldrake, adapted from material he presented at the last Northeast Greenhouse Vegetable Conference at Rutgers:

The plastic-covered greenhouse has been growing in popularity in the United States. One of its most common uses is for the production of vegetable and flower plants in the late winter and early spring months. However, after a grower constructs a plastic greenhouse for plant growing, he frequently finds many uses for the structure for the remainder of the year.

Also, in many areas of the country, plastic houses have been constructed primarily for the purpose of producing tomatoes, lettuce, cucumbers, chrysanthemums, carnations, and other horticultural items. Crops grown under plastic have been excellent. Some growers now prefer to grow crops under plastic rather than under glass.

Poly Common

The most common plastic in use today is polyethylene. Probably more than 95 percent of the plastic houses in the U.S.A. are covered with this material. The most common thickness is 4-mil (1 mil = 0.001 inch), although some growers have used 2-mil and others will use 6-mil.

Polyethylene is a unique film for several reasons: it has very good light transmission; the cost is very reasonable (less than one cent per square foot for 4-mil); it is available in a variety of seamless widths, from the narrow widths to up to 40 feet, and rolls can be almost any length (100 feet is most common); and polyethylene is quite generally available in all supply channels as a relatively standard product.

The primary drawback is its susceptibility to breakdown under ultraviolet light. Normally, we recommend that the plastic be applied in September or October. This covering will remain in good condition until July or August of the following year. In more southerly areas, the film breaks down sooner.

Most manufacturers now produce an ultraviolet-resistant polyethylene which will last appreciably longer. If the resistant material is applied in October, it is possible to obtain two plant growing seasons. The 6-mil material appears to last four to five months longer than the 4-mil. In the National Agricultural Plastics Testing Program, the average life at eight locations in the U.S.A. was 14.3 months for 4-mil and 19.5 months for 6-mil. These tests were with ultraviolet-resistant polyethylene films applied on May 15, 1964.

Other Films

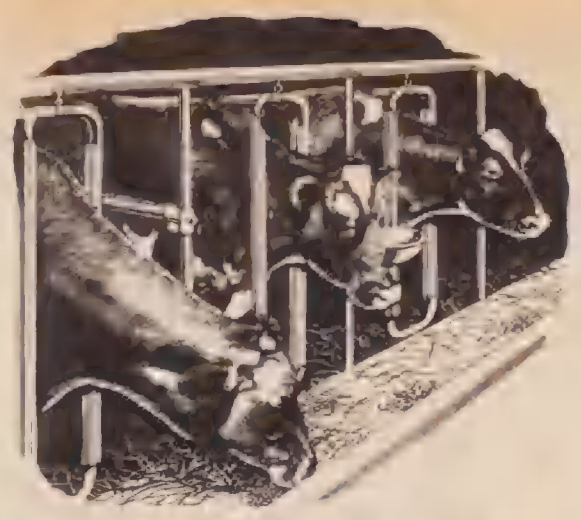
Other agricultural films for greenhouse covering include polyvinylchloride (P.V.C.). However, this material has a width limitation of about 7 feet. Also because of the different plasticizers employed, some production runs have discolored, some have been brittle at cold temperatures, and some have attracted considerable dust. Generally, the length of life is about 30 to 40 percent longer than ultraviolet-resistant polyethylene. The cost of P.V.C. film is roughly 3 to 4 cents per square foot for the 4-mil material.

Polyester film (Mylar) of 5-mil thickness was popular for a while, but apparently the cost of this resin increased. The Mylar that is used on greenhouses will last for about five years. When properly applied this film made an excellent cover. The widest width was just over 4 feet and the cost formerly was approximately 16 cents per square foot.

At the present time, growers are very interested in rigid plastics: fiberglass and rigid P.V.C. Good quality fiberglass costs 35 to 40 cents per square foot. Unfortunately, many grades or qualities are offered to growers, and, quite naturally, many will purchase the cheapest material. Installation labor is quite high and a grower should be encouraged to buy only the best-grade material. The manufacturers are offering a warranty of about 15 years and they claim it should easily last 20 years.

Most of the rigid P.V.C. is imported from Japan and is corrugated. This is a relatively new product which we have had in test for only one year. It looks good so far. We are especially interested in its characteristics under cold tem-

(Continued on page 33)



MILK FAT LOW

FEED and heredity influence milk fat test, says L. H. Schultz, University of Wisconsin dairy specialist. Feed seems to be the cause of most low-test problems.

Several common feeding programs tend to decrease test. Rations low in roughage and high in concentrates cause lower fat test. The more corn there is in the grain mix and the more digestible the roughage, the greater the problem becomes.

A rough guide under normal feeding conditions is to provide a minimum of one pound of dry matter as hay (or its equivalent as silage or other materials) per hundred pounds of bodyweight daily. With highly-digestible materials, you may need even more roughage, adds Schultz.

Another way of expressing roughage needs is to provide a minimum of a third of the dry matter in the total ration as long hay or its equivalent.

Still another thumb rule is to provide a minimum of about 15 percent fiber in the dry matter of the total ration. These recommendations represent minimal amounts of roughage under average conditions.

Pelleting

Heating or pelleting of the grain mixture also tends to decrease the milk fat test. With low or moderate levels of an average grain mixture, there is little if any change due to pelleting. The effect increases with higher levels of corn, with heavier grain feeding, and when the grain is fed with restricted or low fiber roughage.

Finely-ground hay fed as the only source of roughage, whether pelleted or not, reduces fat percentage. This effect is observed only when the hay is finely ground, and not with chopped hay or hay wafers, points out Schultz.

When cows go on pasture in the spring or when shifted to aftermath in the fall, decreases in test are common. Early-cut stored forages fed with liberal grain cause similar decreases. This is similar to the decrease observed with high-grain, low-roughage rations, since the forage may approach grain in digestibility.

Schultz recommends adding more roughage to the ration as a solution to the problem of low fat test. Changes in fat test due to ration changes are gradual. It takes about three weeks on a high grain ration to reach the maximum decrease in test and about the same time for full recovery after shifting back to a normal ration.

The stage of lactation also affects the test. Cows usually test high the first month or two after calving, decline to a low point from the third to the seventh month of lactation, and increase toward the end of lactation.

Any general infection or disorder that causes a cow to go off feed and drop in milk usually results in a fat test above normal. Ketosis is an example. However, when the mammary gland only is affected, as in mastitis, there is usually a **decrease** in both milk production and test.

Milking practices can affect fat test. First milk is low in fat and strippings are high in test. Therefore, holding up milk, slow or incomplete removal results in a lower test for that milking. However, this fat is not lost, and most of it is obtained at the next milking if normal let-down occurs.

Cows fatter at calving have higher initial fat tests. Cows in poor condition tend to have lower tests, regardless of stage of lactation.

Tests tend to decline slightly as the number of lactations increases. This may be related to the increase in the extent of mastitis with increasing age.

Temperatures may cause small changes in test. Cool weather increases test and hot weather decreases it. Studies show that between 65 and 105 degrees there is a one-tenth of a percentage point decrease in fat test for each 10 degree rise in temperature. If the temperature is so high that milk production is definitely reduced, fat test may go up.



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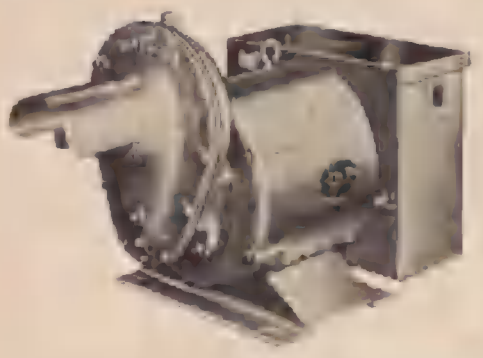
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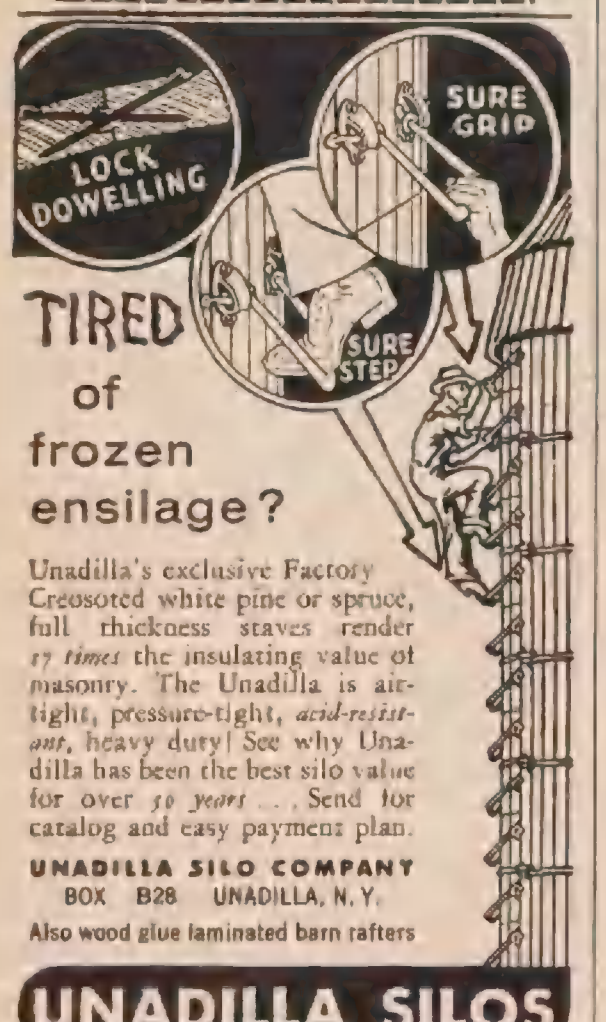
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DOLLAR GUIDE

From The Northeast Farmer

BLEND PRICES for milk delivered to the New York-New Jersey market in the first six months of 1968 will average 19 cents higher than in same period of 1967 if current suspension orders are continued, predicts Dr. A. J. Pollard, market administrator. Uniform prices would be above last year in every month of the period, with the biggest gain 28 cents in April, and the smallest seven cents in January.

BLENDED PRICES in 1968 to dairy farmers supplying the Massachusetts-Rhode Island-New Hampshire milk marketing area are expected to average 8 cents a hundredweight above 1967, and 30 cents above 1966, according to the New England Milk Price Forecast Committee, a group of college and cooperative association economists.

FEWER LAYERS in poultry flocks of U.S. a few months hence are indicated by 30 percent reduction in level of bird numbers in breeding flocks being tested for pullorum. Layer numbers are being shrunk in response to low prices over past year, and slow improvement in egg prices of recent months should be even better by fall of '68.

"HOLLOW GUT"... a shortage of available energy ... is still one of the commonest "diseases," limiting the production of dairy cattle. Sort out purchased feed alternatives on the basis of cost per therm of net energy. Dairy county agents can give you the figures you need for the calculation.

CHRISTMAS TREE GROWERS will find a wealth of information in a technical manual produced by and available from Allied Chemical Corporation, 40 Rector Street, New York, N.Y. 10006. Cost $2.00.

"INSURANCE FACTS FOR FARMERS" is title of new publication ... discusses all kinds of insurance as well as social security and annuities for farmers. For a copy, send 15 cents to U. S. Government Printing Office, Washington, D.C. 20402 and ask for publication 2W.

NEW ENGLAND POULTRYMEN will find helpful a publication entitled "Poultry House Ventilation," available from their county agents, prepared by New England Farm Electrification Institute and region's Cooperative Extension Services.

MILK FEVER is problem of mature cows, seldom during first and second lactations. Appears to be a problem of calcium-to-phosphorus ratio in ration (should be between 1 to 1 and 2 to 1). Check with your veterinarian and county agent for results in medical and feeding research.

DENSITY STUDIES on commercial California poultry farms show that hens perform the best when given the most room. However, reasonable crowding of cage layers resulted in greater profits. Three birds per 12 x 18-inch ... or six per 24 x 18-inch cage ... were generally the most profitable densities.

COOL-HEADED COWS gave more milk than the "hotheads" in a recent USDA test, where test cows had their heads and necks in an air-conditioned enclosure. Point to remember is that keeping cows cool in summer helps production ... one reason why some herds are kept in barn all day during hot weather.

ILLEGAL RESIDUES of stilbestrol and streptomycin have been showing up occasionally in some meat samples selected by the Food and Drug Administration. Feeders boost profits by using medicated feeds, should follow label to the letter, and thereby insure continued opportunity to use feed additives.

COCCIDIOSIS is usually considered a poultry disease, but this organism can attack dairy cattle as well. Wetness favors growth of coccidia ... dry quarters for cattle, especially from the age span of calf to yearling, are helpful in prevention.

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by Hugh Cosline



For egg producers

NARROW PROFIT MARGIN

RECENTLY, I visited about the poultry business with George Earl . . . Cooperative Extension Specialist for the poultry industry in seven Central New York counties.

In response to my questions, he commented about the industry:

"What are the big problems bothering poultrymen?"

"The big one is the price of eggs, but there isn't too much the individual producer can do about it. Government is buying some fowls for school lunches on a 'bid basis' . . . usually 4 to 5 cents a pound. I understand they are also buying some eggs.

"Organizations of poultrymen are urging drastic culling of laying flocks to cut egg production and chicken men are buying fewer chicks than last year. However, it looks as though it will be six to nine months before egg prices will improve much."

"Whenever prices get low, there is talk of government production controls or a national marketing order, but it appears that a majority of egg producers are opposed to such action."

"Then it would seem that cutting production costs is the answer."

"That's true, but it isn't easy. The figures do show, though, that the cost of producing a dozen eggs varies considerably on different farms.

"The three big costs of egg production are feed, pullet replacement, and labor. The cost of a good feed for poultry varies considerably and a man needs to bargain for the lowest price. Most poultrymen these days take bulk feed delivery. Then there's the matter of waste. Hens will 'bill out' feed if the feeder is too full. Two rats eat as much as a hen, but rat-proof buildings have reduced this problem greatly.

"A big 'mover' in egg cost per dozen is the number of eggs produced per man employed. While production per bird is important, especially in reducing feed cost per dozen eggs, **the number of hens per man** is very important. A man who sells eggs wholesale, packing them in cases as they are gathered can take care of 25,000 layers in cages except for extra help needed in cleaning houses and replacing layers.

"Mechanization is essential, either a mechanical feeder or a power feeding cart and some mechanical method of manure removal. One way is a deep pit which can be cleaned occasionally at a convenient time, rather than a system that must be used daily . . . or some other means of storing manure so it is unnecessary to haul it daily. Some poultrymen are lucky in having a dairyman or crop-growing neighbor who is willing to haul the manure away every day."

"Do most egg producers buy pullets or raise them?"

"Some men say they can make

(Continued on page 32)



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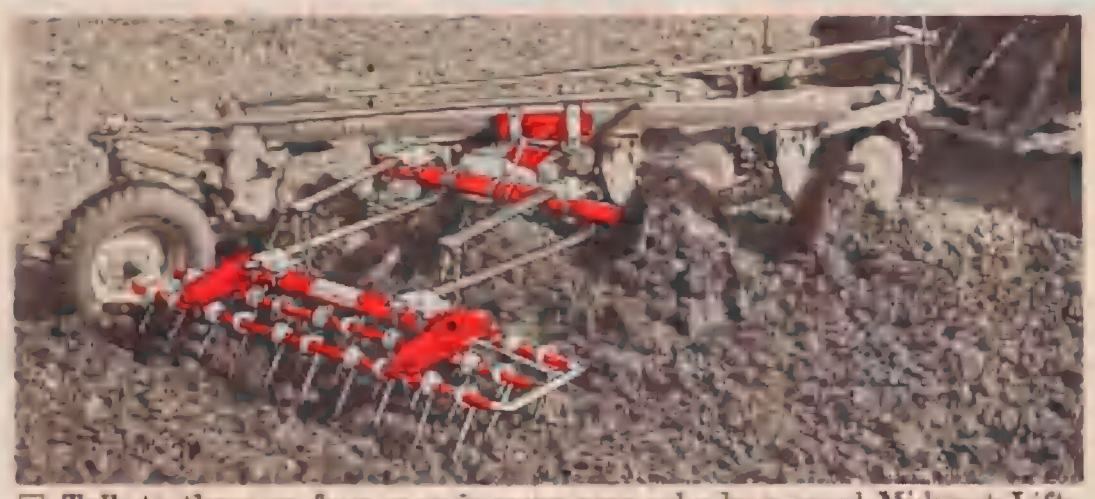
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"It was a hard decision to make when we started in the dairy business, but after hearing the Bou-Matic program and carefully watching others around us we chose Dari-Kool all the way.

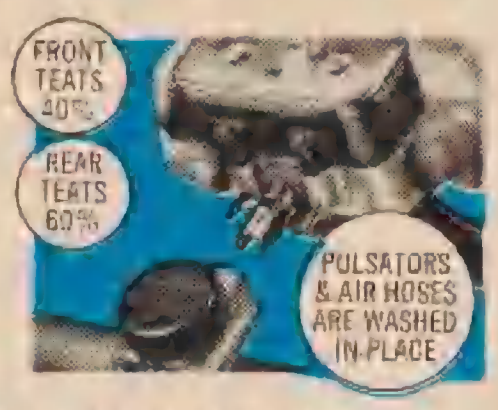
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P. S. "Our Dari-Kool Bulk Milk Cooler keeps the milk blend temperature below 40° F."

Barrie Hawk

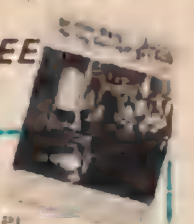
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(Continued from page 31)

more money by putting full time on egg production; others find it profitable to raise pullets. Comparative prices play a large part in determining this, of course. With the high egg prices of 1966, emphasis on eggs gave better returns then, but time spent on raising pullets in 1967 usually gave better returns.

"I think more poultrymen are raising their own pullets. One reason is that it's difficult to get a man to raise pullets the way you want them raised, in the numbers you want, when you want them. A twenty-week-old started pullet costs around $1.70 to buy outright. Some men figure they can be raised for $1.45 to $1.55, including labor costs. If you hire them raised, the usual charge is 1½ cents per bird per week, plus 5 cents for fuel and labor. You pay for the feed.

"It is still important to raise pullets away from old hens. This is the chief way to cut losses from leucosis, which continues to be the most costly disease of hens. Research is developing more facts about leucosis, but we still don't have a complete answer. It can hit a bunch of pullets or a laying flock, causing a production slump and serious death losses.

"We know a lot more about raising pullets. For example, in a windowless house with light control pullets can be managed so they do not come into production before twenty to twenty-two weeks. We know that when the days (light) are getting longer, pullets mature more rapidly and when days are getting shorter in the fall, they mature more slowly.

"Of course 'biddy' used to raise her family in the spring, but now poultrymen want to renew the flock every six, four, or three months, and hatching baby chicks is a year-round business.

"If you buy baby chicks, you have some bargaining power with the hatcheryman . . especially if you buy a lot of them. This year your bargaining power is bigger than it was last year because poultrymen are buying fewer chicks and hatcheries are hungry for business."

"One way of stating cost control would be to label it management, wouldn't it?"

"Yes, in fact, a pencil is one of the most important tools a poultryman can use. But before managing, you need facts on which to base decisions. The easiest way to get the facts in the area I cover is to spend $75 a year and enroll in 'Cornell Electronic Farm Accounting.'

"Enrolled poultrymen get a set of data sheets and what's called a 'Code Book.' These data sheets are analyzed by a computer and so each bit of information has to be numbered. Every month, participants send in such information as feed costs and other expenses, egg production, number of hens on the first and last of the month, hours of labor, etc.

"Some time later, poultrymen are sent such figures as feed per dozen eggs, dozen eggs per man employed, total cost per dozen eggs, etc. Also, there is a comparison with the average of all poultrymen in the program and . . . after participation for a year . . . a comparison with last year's figures for the same farm.

"The poultryman has the facts so he can spot weaknesses. For example, if his feed cost per dozen eggs is above average, he can take steps to improve.

"There are other similar systems, but I doubt if more than 2 or 3 percent of the poultrymen are enrolled. I should point out that the facts the computer gives you are no better than the information you send in!

"Of course, any farmer can get most of the same information by keeping his own accounts and analyzing them. However, most poultrymen don't do this, or don't do it well enough."

"What are some of the trends in the poultry industry?"

"We have already mentioned that more poultrymen seem to be raising their own pullets. There is a definite trend to bigger size of business . . . I think that the 25,000 to 30,000-bird flock will be quite common, using all family help.

"'Environmental control' is a relatively new term. It means windowless houses with automatic light, along with temperature and fresh air controls. Without electricity, the modern way of hens in cages would be impossible. For insurance, this requires some source of auxiliary electric power to use in case of a power failure.

"Most men hope to get pullets into production at 20 to 22 weeks of age, and to keep them producing for 14 to 15 months. Egg shell quality deteriorates with age of the bird. Forcing the hens into a molt will bring shell quality back when production resumes, but then shell quality falls off faster than with pullets. A few men are force molting and keeping old hens longer, but not many. Of course, one way to adjust to present unfavorable egg prices is to keep old hens longer."

FLETCHER THE 4-H'R



"THE POLITICIANS SHOULD FOLLOW OUR EXAMPLE - MORE PRUNING AND LESS GRAFTING!"

Greenhouses

(Continued from page 28)

perature. The P.V.C. panels came through the first winter in good condition.

Rigid P.V.C. is available at present only in 26-inch widths, but in a range of panel lengths from about 8 to 15 feet. The present cost of this material is 14 to 20 cents per square foot. (October '66).

We have found that two layers of plastic with a "dead air space" is very worthwhile. The space between the layers should be greater than 1 inch and less than 2 inches. If the space is less than 1 inch, the layers may touch and the effect of two layers will be lost. If greater than 2 inches, the insulation value is decreased considerably.

Two layers offer many advantages: the heating requirement is reduced by about 40 percent. Specifically, the heat transfer coefficient (K) is reduced from 1.2 to 0.70. When two layers are properly employed, and good management practices are followed, the condensation or "drip" problem is reduced. The inner layer remains warm and the "dewpoint" is not reached, thus the moisture in the air does not condense out readily. The second layer also offers insurance against accidental loss.

Less Water

We find that crops grown in two-layer houses require watering less frequently. The question of light transmission through two layers is a theoretical one because in practice more light actually is admitted through the two layers than through one layer. This is because with one layer a heavy film of water is universally present on the inside of the single layer. It is also much easier to hold uniform temperature within a two-layer house.

If a polyethylene film will be used as the covering, the design should be such as to allow for rapid recovering. Both layers should be applied from the outside. Small lath and many nails should be avoided. We use wide lath strips of 1 x 2-inch or 1 x 3-inch material and a few double-headed nails. The house should be designed to fit a certain film width or combination with little waste.

Doors should be wide to allow entrance of trucks and tractors, thus enabling efficient materials handling. A small doorway can be a nuisance and will really decrease efficiency. The recent trend is to use overhead or sliding doors at least 9 feet wide.

Move Air

Ventilation should generally be by large, high-volume fans. A rule of thumb for deciding fan size is to use a fan capable of delivering one air change per minute. All fans are rated in "cubic feet per minute" and all one must do is calculate the cubic feet of air space within the structure and utilize a fan capable of exhausting at least that much air in one minute at 0.1 inch static pressure. Fans with two-speed motors give greater flexibility in management of the greenhouse.

For ventilation in bright warm weather (temperature higher than 50 degrees outside), the area for air intake must be large. We suggest an unrestricted opening of four to five times the size of the fan opening. Baffles may be necessary to direct the incoming air up and over the crop to prevent excessive drying out.

Cold Weather

For ventilation in colder weather, the best arrangement is with an 18 to 24-inch polyethylene tube. The tube is very inexpensive and can be obtained with or without holes; generally we cut our own holes. The tube can be hung from the top of the greenhouse on a wire or supported in some other fashion.

One end, or both ends, can be connected to the outside with a length of metal pipe the same size. A turned-down metal elbow on the outside wall will prevent wind and rain from blowing in. Some growers use a damper to close off the inlet, others use small louvers.

The function of this tube is to distribute the incoming cold air uniformly throughout the house and prevent any cold spots. When the large exhaust fan is actuated by a thermostat, a negative pressure or vacuum is created within the house; outside air then rushes into the tube and spills out through the holes in the tube. The holes are positioned at approximately the 10 and 2 o'clock position, are about 2 inches in diameter, and are placed 3 to 4 feet apart along each side.

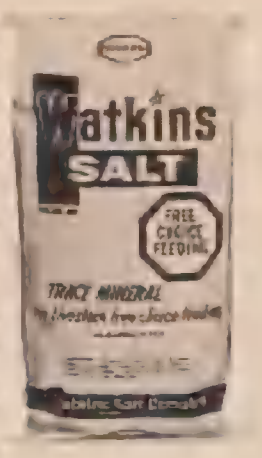
The most recent adaptation is to install another fan, smaller in size (1500 to 2500 c.f.m.) into the tube and allow it to run constantly. The tube is then not connected to the outside directly, but a space (2 to 4 feet) separates the fan from the outside wall. In the wall, a small louver is mounted so that it opens to the inside. For normal night time and cool-day operation the fan constantly stirs the inside air, moving cooler air from the floor up into the tube and thus forcing warmer air down to the plants.

This simple device certainly improves greenhouse manage-

(Continued on page 35)

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This trace mineral salt is formulated with the correct amount of trace minerals for poultry feeds. It contains high levels of manganese and zinc shown by research to be necessary for poultry. It is not to be used to feed free choice, but only for mixing and in the same quantities as plain salt.



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Active drug ingredient is Ethylenediamine Dihydriodide, called EDDI, for the purpose of helping prevent foot rot, soft tissue lumpy jaw and simple goiter in dairy and beef cattle. It is to be used in place of plain or other trace mineral salt because it also supplies the regular amount of salt and supplemental trace minerals.



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Ann Hathaway's Cottage is a place everyone wants to see when visiting the British Isles.

A SPRING VACATION!

THIS YEAR we are reversing the order of our British Isles and Grand European Tours. We will visit the British Isles in the spring (**May 5–26**) and make the Grand European trip during the month of September. We will also have our annual Scandinavian tour in June and a Spanish Holiday in the fall.

In the British Isles, we will visit the London area first and enjoy all the attractions of this fascinating city, such as Westminster Abbey, Houses of Parliament, Buckingham Palace, and the Tower of London. Other places we will see in England are Windsor, Hampton Court Palace, Canterbury and Salisbury Cathedrals, historic Stonehenge, Shakespeare Country, and the beautiful Lake District.

Edinburgh will be our headquarters in Scotland. We'll visit Edinburgh Castle and drive down the Royal Mile to see John Knox's House, St. Giles Cathedral and Thistle Chapel, Holyrood House, and Princes Street with its shops on one side and gardens on the other. We'll spend a day traveling through the heather-covered countryside to visit lovely Loch Lomond, before leaving for Ireland.

Our first stop there is Dublin, and sightseeing will include the Castle, famous O'Connell Street, St. Patrick's Cathedral, and Trinity College. There'll be time to shop in the many fine stores for Irish souvenirs and gifts. We'll also visit Cork and Blarney Castle and take the most famous excursion in all Ireland for sheer beauty when we tour County Kerry.

In addition to the places we've told you about (and many more we haven't even mentioned), an extra-special treat is in store for all those going on our British Isles Holiday this spring — a side trip to Holland to see the famous tulip fields in bloom. This is the first time we've offered this exciting excursion, and we are thrilled that Travel Service Bureau, our tour agents, were able to arrange it.

Far East Tour

Another exciting "first" in **American Agriculturist's** tour program is a trip to Japan and the Far East, and the dates for this are **May 23 to June 16.**

Following are a few of the high spots in our Far East Holiday:

Alaska — Two days in our 49th State, touring Anchorage with its magnificent view of Cook Inlet and Mt. McKinley, and an excursion to Portage Glacier.

Japan — Sightseeing and shopping in Tokyo; beautiful Nikko and Lake Chuzenji; a ride on Japan's highly publicized new railway between Odawara and Nagoya; a taste of the "old" Japan at Kyoto; and a four-day tour of the Inland Sea area.

Formosa — The only place in the free world where one can witness and experience the tradition-steeped Chinese way of life. A sightseeing tour of Taipeh, the capital, and a trip to Sun Moon Lake.

Hong Kong with its teeming population and beautiful harbor filled with ships of all nations, and fantastic bargains in tailor-made suits.

Honolulu — A day in this wonderful city (arrangements can be made to stay longer if you wish) before flying to San Francisco and on to our home airports.

Freighter Cruise and Hawaii

There is still time to join our Freighter Cruise which will leave New York on **March 2** and return on or about **March 22.** Since this is truly a "casual" cruise, we go where and when the ship goes, and our probable ports of call will be Santa Domingo, Aruba, LaGuaira (Caracas), and Puerto Cabello. Here is a wonderful opportunity to spend a few days at winter's end relaxing in the sun and enjoying the beautiful blue

(Continued on next page)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

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Far East ____ Freighter Cruise ____

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Greenhouses

(Continued from page 33)

ment. The moving air circulates carbon dioxide and reduces the incidence of disease by reducing the moisture on the leaf area. It also reduces the "stacking of heat" and more uniform temperatures can be maintained. Now, when the big fan is in operation because of excessive heat in the greenhouse, it will produce the necessary vacuum or negative pressure which will force the louvers to open inward and cooler air will rush in and be circulated by the small fan-tube arrangement.

Heating

Heating should be decided before construction begins. Heating systems can be the same as for glasshouses. Heat requirements are based upon the exposed outside surface area and the difference between the desired inside temperature and the coldest-expected, or the average coldest-expected temperature . . . often called the "design temperature" for an area.

The heat is figured in Btu (British thermal units) per hour; it will require 1200 Btu per hour for each 1000 square feet of exposed area for each one degree difference in temperature required if one layer of polyethylene is used. The interesting comparison is for two layers where the corresponding figure will be 700 Btu.

The heat can be hot air, hot water, steam, or infrared . . . and the fuel source can be any commonly-used type. Proper distribution of the heat is essential.

The cost of plastic greenhouses can vary considerably. The design that we have proposed is a 21 x 100-foot structure. It has two layers of 4-mil film and all of the materials to build such a house cost about 20 cents per square foot. The heating system will add 22 cents and the automatic ventilation system about 10 cents, for a total of approximately 1,000 dollars for a two-layer plastic house heated and ventilated (one thousand dollars for 2100 square feet). These costs agree closely with other states and one could use an average cost of 50 to 75 cents per square foot for two-layer construction including automatic heat and ventilation.

SPRING VACATION!

(Continued from page 34)

waters of the Caribbean!

On **April 6** we leave home to spend two weeks in Hawaii, Paradise of the Pacific. This trip starts with a wonderful day in the Portland, Oregon, area where we drive along the Columbia River Highway, stopping at Multnomah Falls for lunch, and then up the slopes of beautiful Mt. Hood to Timberline Lodge.

In Hawaii we'll visit the four best-known islands – Hawaii, Maui, Kauai, and Oahu. We'll see all the beautiful and famous places on each island; here are just a few of them.

On **Hawaii**, the Kona Coast, Parker Ranch, Hawaii National Park in volcano land, and beautiful Akaka Falls.

Lahaina, old whaling center and former capital city of the Islands, and the "Needle" on **Maui.**

A motor launch excursion trip up the Wailua River to a beautiful fern grotto and a trip to Waimea Canyon, "Grand Canyon of the Pacific," on the **Island of Kauai.**

All the wonderful sights of the Honolulu-Waikiki area, including Sea Life Park, the Polynesian Culture Center, Pearl Harbor Cruise, and Kodak Hula Show, on **Oahu.**

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The Song of the Lazy Farmer

It's dangerous as all get out for anyone to roam about when snow is piled upon the ground and icy spots are all around. If you are short of wind and old, you shouldn't go out in the cold, you're apt to get your ears nipped off, you'll probably pick up a cough, and if you wade through knee-deep snow, a heart attack might lay you low. But even if you miss that fate, you prob'ly won't have long to wait before you skid upon the ice and get a bump or break or slice which either fixes you for good or hurts so bad you wish it would.



In winter-time, the place to be is right where you'll be finding me; from now until the song-birds fly, I'm staying where it's warm and dry. I've fin'lly got Mirandy sold, she's now convinced that ice and cold are things that I should stay out of or else she'll have no man to love. To make her realize it, though, I had to stay out in the snow 'til lips were blue and ears were white. And then, to do the job up right, I slipped so I would bump my head, and when she saw me nearly dead she then agreed to my desire to stay indoors beside the fire.

Livestock Mart



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BLACK EAGLE dtrs. show a very substantial increase of from +2.4 to +6.3 in every type category.

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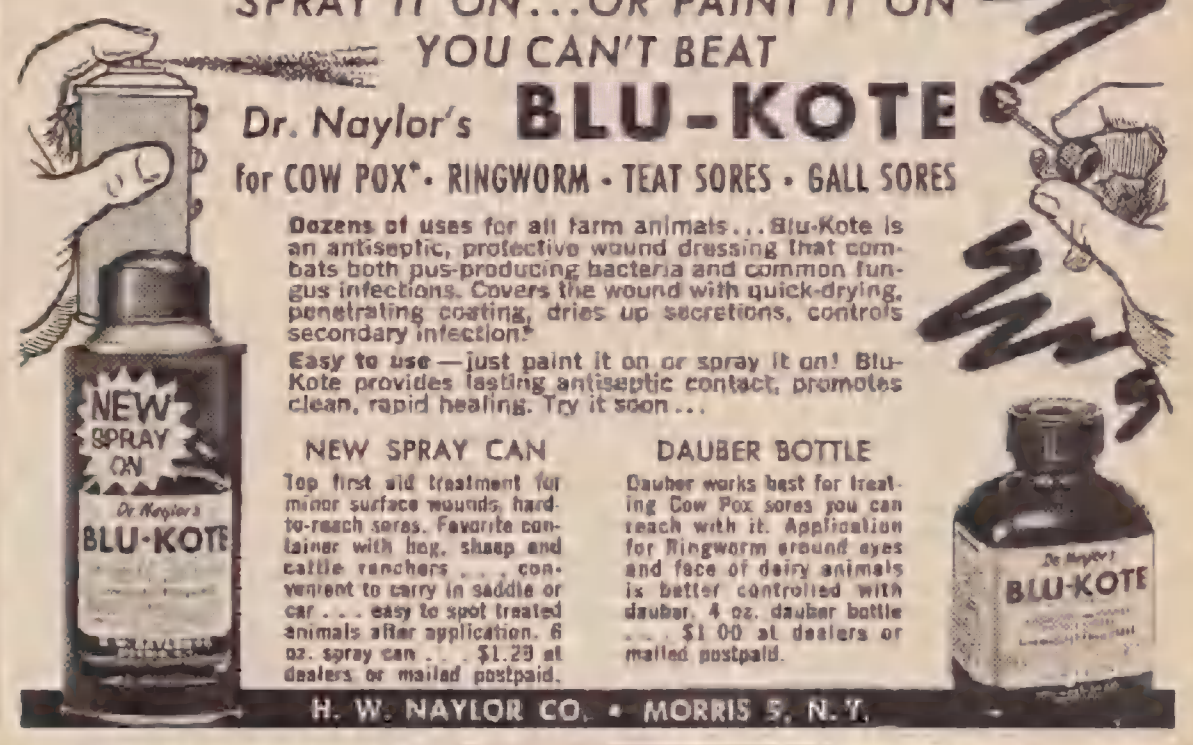
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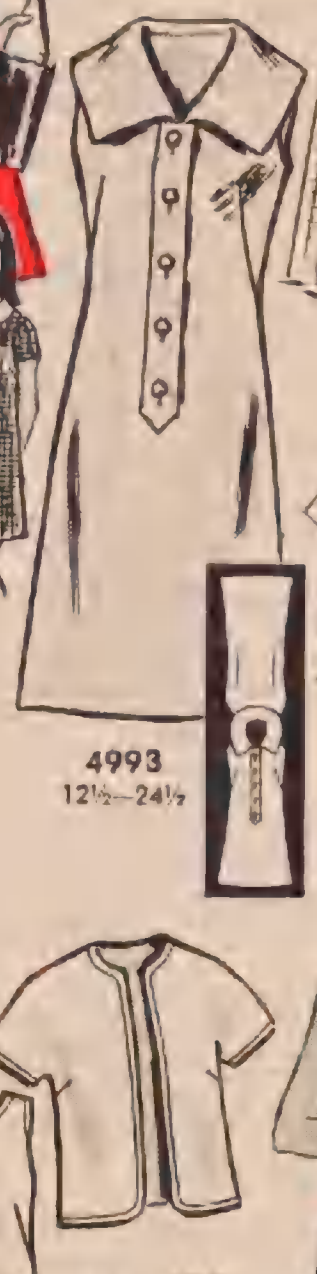
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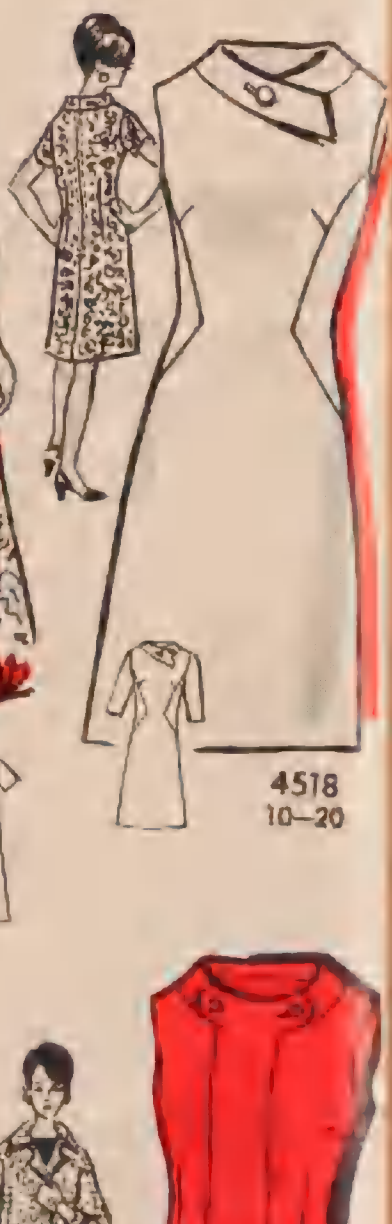

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BE SURE TO USE YOUR ZIP

Do You Have...

A recipe for Boston Drop Cookies? They contain cornstarch and when baked, have a little "hill" in the center. **Mrs. Mary Poksteel, 113½ 8th Avenue, North, St. Petersburg, Florida,** would like this recipe.

Copies of Pillsbury Bake-Off cookbooks No. 1, 2, and 3? **Mrs. William F. Moser, R. D. 5, Box 282, Kingston, N. Y. 12401,** is looking for them.

Any pieces of Ducal Crown China, Monarch pattern? **Mrs. Pierre J. Costich, Sr., 80 Capitol Ave., Williston Park, N. Y. 11596,** describes it as having a heavy blue band around each dish and a pink rosebud in the center.

A recipe for "Honey Cake"? **Mrs. Claire Duvekot, P.O. Box 91, Madison, N. J. 07940,** says it contains no eggs or shortening, is easy to make, and keeps for weeks.

Copies of the first three American Agriculturist cookbooks? This question comes from **Mrs. Helen Wespalis, New Braintree, Mass. 01531.**

Pieces of "Queen Bess" silverware you would sell **Mrs. William Higgins, R. D. 1, Little Valley, N. Y.?** She is especially interested in salad forks, teaspoons, and serving pieces.

Any idea where **Mrs. Doris Davis, South Royalton, Vermont,** can get a nut orchid "bulb"? She says it is a house plant with small orchid-like blossoms.

Instructions for making a hairpin lace dress? This request comes from **Mrs. Linda Ferrando, Birch Mountain Rd., Glastonbury, Conn.**

A copy of "The Complete Book of Crochet" by Elizabeth Matheson you would sell **Mrs. Stanley DeMay, R. D. 1, Palmyra, N. Y. 14522?**

A formula for making old fashioned oil floor dressing for a maple floor? This question is asked by **Mrs. John Monteith, North Granby, Conn. 06060.**

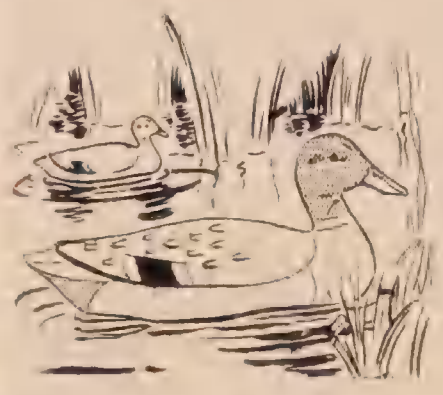
A pattern for the afghan seen in "The Barretts of Wimpole Street"? **Miss Aurelia Kilmer, 21 Platt Ave., Rhinebeck, New York,** asks for this.

FEBRUARY

by Mildred Goff

Nothing has changed. It's winter still.
Snow drifts are deep, the wind is chill.
Yet under the snow the grass is green
And patiently, unheard, unseen,
Flowers are readying to grow.
There is a stirring in the snow.

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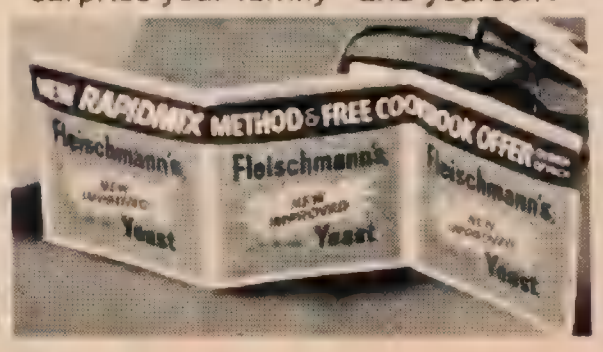
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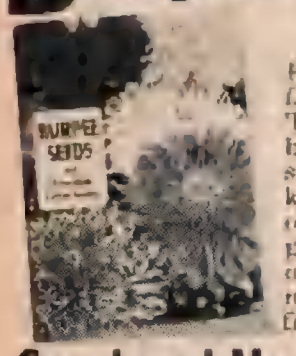
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Photos: General Foods Kitchens

You may well be proud to serve such a handsome dessert as this luscious chocolate Lincoln Log; yet it's surprisingly easy to prepare.

FOOD FOR FEBRUARY HOLIDAYS

by Alberta Shackelton

FEBRUARY'S CALENDAR brings several dates to circle. For the weather-watcher, it will be Ground-hog Day, but for the homemaker, Valentine's Day and the birthdays of our two most famous Presidents are the times to celebrate! Red or pink hearts and flowers for Valentine's Day and decorations of red, white and blue for the birthdays, plus appropriate foods, can make all of these days gala occasions.

Why not try the following recipes? Those featuring cherries (a "must" for Washington's birthday) and the Lincoln Log come from General Foods Kitchens. You will also enjoy the Pecan Pie, reported by historians to be one of Lincoln's favorites. The Valentine Bavarian Cream is appropriately tinted pink and molded in heart form.

CHERRY COBBLER

- 2 1-lb. cans water packed, pitted red sour cherries *
- 1 to 1⅓ cups sugar
- 3 tablespoons quick-cooking tapioca
- ¼ teaspoon salt
- 2 tablespoons butter
- 1⅓ cups all-purpose flour
- ⅓ cup sugar
- 2 teaspoons baking powder
- ½ teaspoon salt
- ⅓ cup shortening
- ½ cup milk

Drain cherries, measuring 1½ cups liquid. Combine liquid, cherries, sugar, tapioca and salt and let stand 5 minutes. Bring to a boil over medium heat, stirring constantly. Pour into a greased 2-quart baking dish or 9-inch square pan, dot with butter, and place in a preheated oven (425) while mixing topping.

Combine flour, the ¼ cup sugar, baking powder and salt. Cut in shortening. Gradually add milk, stirring with a fork just until dough can be shaped. Knead lightly for several turns on a floured board and roll to fit top of baking dish. Cut several slits near center of dough.

Place dough over cherry mixture in dish, opening slits with a knife to allow escape of steam. Return to oven and bake about 20 minutes or until dough tests done. If desired, sprinkle confectioners' sugar over top and serve with ice cream. Makes 4 to 8 servings.

* You may substitute syrup-packed cherries or thawed, frozen cherries and decrease the sugar used in filling to ¾ cup.

CHERRY PIE

- 2 1-lb. cans water packed, pitted red sour cherries *
- 1 to 1⅓ cups sugar
- 2½ tablespoons quick-cooking tapioca
- ⅛ teaspoon salt
- 6 drops red food coloring
- ¼ to ½ teaspoon almond extract
- 1 tablespoon butter
- Pastry for two-crust, 9-in. pie

Drain cherries, measuring ½ cup liquid. Combine liquid, cherries, sugar, tapioca, salt, food coloring, and almond extract. Let stand about 15 minutes. Place in pastry lined tin and dot with the butter. Moisten edge of pastry with cold water.

Cut several slits or decorative design near center of top crust and adjust over cherries. Press edges of top and bottom pastry together, trim, push up edge with hand and flute. Bake in preheated hot oven (425) 45 to 50 minutes, or until crust is done and syrup bubbles up through openings. Serve with ice cream if desired.

* See note under recipe for Cherry Cobbler.

LINCOLN LOG

- ¾ cup sifted cake flour
- ¾ teaspoon baking powder
- ⅛ teaspoon salt
- 4 eggs (at room temperature)
- ⅔ cup sugar
- 1 teaspoon vanilla
- Chocolate Filling and Frosting

Sift together the flour, baking powder and salt. Beat eggs at high speed with electric mixer, adding sugar gradually. Beat until mixture is fluffy, thick and

(Continued on page 43)

Giant Luscious Apples



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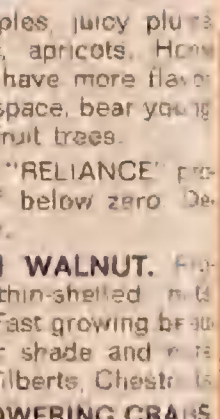
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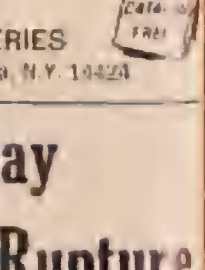


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light colored. Gradually fold in the flour and then the vanilla. Pour batter into a 15×10-inch pan, greased lightly on bottom and sides, then lined with lightly greased wax paper. Bake in a preheated hot oven (400) for 13 minutes.

Loosen sides and turn cake out onto towel, lightly sprinkled with confectioners' sugar; quickly remove paper and trim off crusts of cake. Place fresh piece of wax paper over cake and roll up quickly, towel and all. Cool, unroll, and remove paper.

Spread with Chocolate Filling and roll up again, leaving end of cake underneath. Completely cover with Chocolate Fluff Frosting from pastry bag fitted with a saw-toothed tube or spread on with a spatula and then striate with tines of fork to stimulate bark of tree. Make knots by frosting pieces of cake cut from the trimmed edges. Attach these to log with additional frosting.

Chocolate Filling – Combine 1 package chocolate pudding and pie filling mix with 1¾ cup milk. Cook and stir over medium heat until mixture comes to a full boil. Remove from heat and cool, stirring occasionally.

CHOCOLATE FLUFF FROSTING

½ cup butter
⅔ cup confectioners' sugar
1 teaspoon vanilla
2 squares unsweetened chocolate, melted and cooled
Dash salt
2 egg whites
¾ cup confectioners' sugar

Cream butter, add sugar gradually, and blend well. Add vanilla, cooled chocolate, and salt; mix well. Beat egg whites until stiff but not dry. Add remaining sugar, 2 tablespoons at a time, beating after each addition until blended. Continue beating until mixture stands in peaks. Add to chocolate mixture, folding gently but thoroughly, just to blend.

PECAN PIE

3 eggs, lightly beaten
½ cup dark brown sugar
1 cup light corn syrup
3 tablespoons butter, melted
½ teaspoon salt
1½ teaspoons vanilla extract
1 cup coarsely chopped pecans or pecan halves
1 tablespoon flour
1 9-inch unbaked pie shell
Whipped cream
Pecan halves

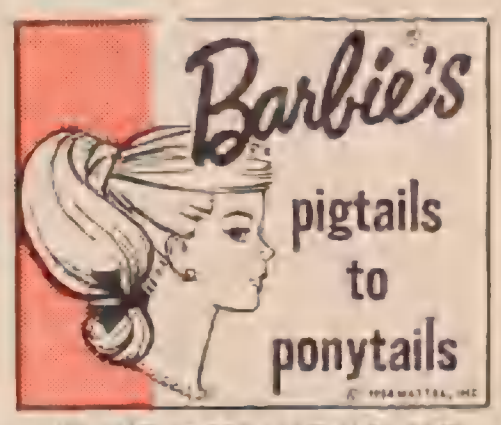
Combine slightly beaten eggs, brown sugar, and corn syrup. Stir in melted butter, salt and vanilla. Blend pecans with the flour and stir into mixture. Pour into pastry-lined pie tin. Place in a preheated moderate oven (375) and bake 40 minutes, or until a knife inserted halfway between outside and center of filling comes out clean. Cool. Garnish with whipped cream and pecan halves.

VALENTINE BAVARIAN CREAM

1 envelope unflavored gelatine
¼ teaspoon salt
½ cup sugar
2 eggs, separated
1½ cups milk
½ cup sugar
1 cup heavy cream, whipped
2 teaspoons vanilla extract
Few drops of red food coloring
1 10-oz. package of frozen strawberries or raspberries

Combine gelatine, salt and the ¼ cup sugar; stir in egg yolks and gradually blend in the milk. Stir and cook over low heat (or over hot water)until mixture coats a metal spoon. Chill until mixture is slightly thickened.

Beat egg whites to soft stiff peaks and gradually beat in the remaining ¼ cup sugar. Fold into custard mixture along with the whipped cream and vanilla and just enough red food coloring to tint a delicate pink. Turn into heart-shaped mold and chill until firm. Unmold onto serving plate, garnish with whipped cream or whipped dessert topping, and spoon defrosted berries over top. Serves about 6.



"MAKE SOMEONE HAPPY"

Once upon a time there was a girl named Melanie. She was mousy-looking and always seemed to have a hem loose or a button missing from her dress. In class, too, Melanie behaved like a mouse, and no one paid much attention to her.

Came lunchtime and recesses and Melanie seemed to melt into the sea of chatting classmates around her.

No one had ever been to her house.

One day, something special happened to Melanie. Something that changed her whole life.

It was Valentine's Day

Melanie came to school and sure enough, the hem was down on her skirt, her hair, though combed, was parted like a "z" and the top button was missing on her sweater.

Came recess, and her teacher, Mrs. Wood, said the children could exchange the valentines they had made for each other. All the boys and girls giggled and laughed in excitement — but not Melanie. For who would send her a valentine?

But suddenly — there appeared on her desk, not just a valentine, but a valentine bouquet of tiny red paper flowers. There was a card attached. It read: "From someone who cares."

The next day, and the day after that, and the day after that — Melanie came to school with her hair brushed to a gleaming shine. Her clothes were as trim as could be, and her eyes were as bright as her smile. At lunchtime and at recess you could hear Melanie's giggles for she was surrounded by friends.

Wouldn't it be nice if you could make someone happy in your class this Valentine's Day?

MIRACLE WORKERS

by Roy Z. Kemp

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TICKLED PINK Petunia

HARRIS SEEDS

You'll be "TICKLED PINK"

The cheerful springtime pink of this Harris petunia is a delight, and its large, graceful flowers bloom early and in abundance. See color photo on page 47.

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84 pages of illustrations and straight-forward descriptions of the finest of vegetables and flowers.

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15 Moreton Farm Rochester, N.Y. 14624



'68
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Beautiful **Hawaii!**

Translate lifelong dreams into marvelous reality this year – a time you'll remember forever!

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JOSEPH HARRIS CO., INC.
17 Moreton Farm Rochester, N. Y. 14624



ED EASTMAN'S PAGE

GEORGE WASHINGTON . . . FARMER

History is full of the names of men who were great along some particular line or specialty, but there are few who stand at the top in many different ways. George Washington was one of these. Not only was he a great general and a great statesman, but not everyone knows that also he was way ahead of his times as a farmer.

Washington owned several farms connected with his large plantation in Virginia. The largest one he managed himself. Several others he leased to tenants. The leases were drawn in Washington's own clear handwriting, and most of the points or conditions set forth in them are just as important as they were when Washington wrote them.

Payment by the tenant was usually made in crops. For example: "The rent of these three farms is a bushel and a half of wheat for each acre, or if the crop fails the equivalent in cash. For Muddy Hole Farm, being more indifferent than the others, the rent will be a quarter of a bushel of wheat less . . . tobacco will not be allowed to be cultivated on any of the farms . . . hogs shall not run at large."

Washington well knew that growing tobacco or any other crop year after year on the same land ruined it. So he insisted, and carefully laid out a rotation of crops for every one of his fields.

Leases should show exactly what expenses should be borne by the owner; what repairs are to be made and who is to pay for them; exactly what crops are to be sold from the land, and what crops, if any, are not to be sold.

A share lease should contain the following provisions: exactly how the expenses, including taxes, insurance, labor, feed, seed, fertilizer and other supplies are to be shared; exactly how the crops or other products are to be divided; just how much in the way of farm products is the tenant entitled to for his personal use.

Putting any kind of a business agreement into writing will save misunderstanding and preserve friendship.

RECIPES FOR A HAPPY MARRIAGE

Out of every hundred marriages in America, seventeen end in divorce. We have to add to this figure the marriages that really fail because of constant bickering and quarreling, even if the couples don't separate. In my work in counseling college students I find that one of their most difficult personal problems is that they come from homes where as they grew up they heard constant quarreling between their parents.

Why is it that so many marriages fail that started on such a high plane of hope and happiness? The chief reason is that the couple soon cease working to make their marriage a success. A marriage counselor who has worked with hundreds of couples lists the reasons for failures, many of which I have emphasized many times. Here they are:

Failure to Communicate. Many couples soon cease to share their problems, their joys, and their thoughts. When you were engaged, and in the first year or so of your marriage, you could hardly wait to tell your partner what happened to you during the day . . . both good and bad. You might call it shared living . . . and you might also call it complete unselfishness.

Failure to remember your partner's birthday. Bring home a box of candy or some flowers for no particular reason except to say "I love you." Failure to notice that your husband has just acquired a good haircut or your wife a new hairdo.

I knew a man once (a bachelor) who frequently took a girl friend of long standing to dinner. But she confided to me rather sadly that no matter how she fixed herself up with a new dress and in other ways for the special occasion, he never noticed.

One of the principal places where marriage fails is in **money matters.** Again that comes back to sharing. Marriage is or should be a true partnership in which both partners have a right to share the money and, even more important, the **responsibility** for spending it wisely.

There is one last suggestion that has much to do with making a happy marriage, and that is never, never go to sleep with anger in your heart and without a goodnight kiss. Who knows what the morrow will bring!

Save this piece, read it often, and let it help you bring lasting happiness into your marriage.

STORIES TO TELL

Letters about "Journey to Day Before Yesterday" give many different reasons why readers like it, but one of the most interesting came from a grandfather who said that his grandchildren were always asking him to tell stories about what he had seen and done when he was a boy growing up in the horse and buggy days.

"It finally got so," the grandfather wrote, "that I was put to it to remember anything more that I could tell my grandchildren, until I read your book. That brought back and freshened up hundreds of memories of the old days, and gave me stories which my grandchildren never seem to get tired of."

If you are looking for a present to make to a relative or a friend on a birthday or any other occasion, or a good book to read yourself, maybe a copy of "Journey to Day Before Yesterday" will be just what you want.

To get a copy write to American Agriculturist, Department Book, Box 370, Ithaca, New York 14850. The price is $5.95, plus 12 cents tax in New York State.

SUCCESSFUL SMALL OPERATION

The smaller number of farmers makes the farmer's vote count less and less with the politicians, and lessens his power to get fair prices in the marketplace. But lately I have been encouraged because of the response to my request for letters from small or medium-sized farm operators who are making a success of their business.

As an example of what I mean, here is a letter from the wife of a successful operator of a medium-sized farm. How many business or professional men do you think have a net of $35,000 made from their own business or profession after a few years of work?

"My husband says bigness is no ticket for success. He ought to know. He owns 200 acres of land that always needs lots of lime, 130 acres tillable; milks 30 Holsteins and raises his own replacements; buys used tractors and machinery and keeps them repaired himself; grows all of his own hay, oats, and corn for silage; built his own 30' × 120' pole shed with farm shop; built his own 50' × 35' dairy barn addition; and will gross about $19,500 in income this year. And he's got lots of future improvements in mind, although he expects to stay pretty much the same size business. After debts he has a net worth of $35,000.

"When he came here in 1957, fresh out of high school, his list of assets didn't look like much. He had a bride, an old car, $1000 in savings, a job, some sticks of borrowed furniture, a rundown, mismanaged farm of 90 acres, with a barn that couldn't pass regulations to ship milk, an unbelievably-dirty little house with broken windows and broken plumbing, piles and piles of trash . . . and a mortgage.

"It took ten years of very hard work, an eagle eye on every dollar, well-kept and much-studied records. It still takes all these things. You do have to be big on management." – C. H. D.

"I FIX IT"

I was visiting with Mr. Ehlert Kopke, the farmer who now lives on the farm where I spent much of my boyhood, and he showed me what seemed to me to be a rather complicated stable cleaner. He pushes a button and the cleaner carries the manure to the manure spreader outside. What a contrast to the way I did it with a wheelbarrow and a shovel!

"What happens when the cleaner breaks down?" I asked.

"I fix it," he said simply. Thousands of farmers like Ehlert do their own repair work; otherwise they soon would be out of business. No other business in the world requires as much all-around knowledge as does farming, and being at least a fair mechanic is now absolutely necessary to being a successful farmer.

Most farmers, especially if they are young, can soon learn to do simple repair work, but they can't do it without tools. That calls for a place to store them, and a place to do the work . . . in other words, a farm shop.

No investment will pay you more than a good farm shop equipped with basic repair tools, always organized in their place ready for use when you want them. And for heaven's sake, don't forget to heat it!

Your college of agriculture has bulletins and building plans for farm shops. Why not get the information and build one immediately? If you already have a farm shop, how can you reorganize it to make it handier?

EASTMAN'S CHESTNUT

My friend George C. Moyer contributes the chestnut for this time:

A bearded old gentleman was coming down the highway with his friend. Three smart young fellows saw him coming, and decided to have some fun at the expense of the old gentleman.

As the old man approached, the first smart alec said, "Good morning, Father Abraham." The second smart alec said, "Good morning, Father Isaac," and the third said, "Good morning, Father Jacob."

The old gentleman responded by saying, "I am neither Abraham nor Isaac nor Jacob. I am Saul the son of Kish. My father has lost his asses, and this servant and I have been hunting far and wide, and high and low for them. And lo and behold, now I have found them!"

American Agriculturist, February, 1960

SERVICE BUREAU

For The Northeast Farmer

SIGNS OF SPRING

With spring fast approaching, it is an appropriate time to recall some of the schemes that "pop up" each year along with the bursting buds. There are some unscrupulous people ever ready to prey upon the unwary public, particularly the elderly or those who live alone. They include:

- Itinerant pitchmen who do a driveway resurfacing job that washes off with the first rain.
- Traveling repairmen who convince homeowners that their property is greatly in need of roofing and other repairs, and then overcharge for work that is not satisfactory or not even essential.
- Salesmen without proper credentials who rush customers into signing contracts which they have not read thoroughly or do not understand.
- Companies that use "bait and switch" tactics, offering something at an unbelievably low price and then inducing the customer to switch to a much higher-priced item.
- Companies that send unordered merchandise and then drive the recipients crazy with bills.
- Mail order firms (not actually nurserymen) that send out folders showing exaggerated pictures of fabulous plants, such as quick-growing shade trees that grow roof high in a single year (and which may develop into undesirable weeds), climbing strawberries and cucumbers, tree tomatoes, and spectacular roses.

These are a few of the schemes about which we receive complaints. As consumers, it is our responsibility to be aware of possible swindles and to deal only with reputable parties.

Before hiring strangers for home improvement work, check on their credentials, check with others for whom they have done work, get estimates from local workmen.

Read any contract carefully, check credit charges, make sure it is completely filled in. You are obligated to understand any paper you sign.

Don't be rushed into anything. Reliable companies and salesmen will give you time to check.

IT'S A PLEASURE

"About a year ago you printed a request for me in the Service Bureau and, as a result, I have corresponded with some of the nicest people. Thanks for the pleasure you have given me in meeting these people through the mail. If they are a sample of those who take your magazine, may I say they are the greatest."

We think they are, too!

CAN YOU HELP?

Mr. Charles Hayden, Box 16, Hawley, Pa. is searching for a HOMASOTE handbook 1958 edition. The leaflet is 3½" × 6".

* * *

Mrs. Douglas Overacker, 112 Mechanic St., Antwerp, N. Y., is looking for a writing which compares a deck of cards with the Bible and which originated during World War II.

* * *

Mrs. Lloyd Hopler, R.F.D. 2, Stockton, New Jersey, is trying to locate dishes that came from the Larkin Company about 35 years ago. This was Noritake china from Japan.

* * *

Miss Hazel Abbey, R. 2, Cherry Creek, New York 14723, would like the words to "Isle of Capri," "The Old Spinning Wheel," and "The Old Pine Tree."

* * *

Mrs. Lewis Young, R.F.D. 1, Box 600, Wellsburg, W. Va., would like a copy of the poem which begins, "Early on a pleasant day; In the poet's month of May . . ."

* * *

Mrs. Harry McDonald, 245 W. North St., Geneva, N. Y., would like to get a book of poems by Thomas A. Daley in the Italian dialect.

* * *

Mrs. Ben Cooper, 76 West Ave., Lyndonville, N. Y., would like the words to the poem which ends. "My little girl, you know I love you, but you're scattered here and there." She would also like the toast to pay-day which begins, "Here's to the bald-headed Eagle."

* * *

Rena Daniel, Rt. 3, Catawissa, Penna., is trying to find a picture of the famous race horse, Dan Patch, which was put out by the International Stock Co., Minn.

* * *

Mrs. Gerald Patterson, 121 La Grande Ave., Fanwood, N. J., would like to obtain copies of the first, second and third grade 'readers' of The New Educational Series in use in N.Y. State in the 1920's; also Baldwin readers, especially fourth and fifth grade ones.

* * *



Mr. Charles Schwartz of Palmyra, N.Y. received checks totalling $2944.30 from local agent C. E. "Dutch" Reynolds of Palmyra, N.Y. While working in the woods a tree fell on Mr. Schwartz crushing his toes and foot. Because of a complicating infection after the third day he had to be transferred by ambulance to a larger hospital. There he underwent operations and spent 36 days.

LETTER OF THANKS

North American Acc. Ins. Co.

After losing half my foot from having a tree fall on it and then being laid up for 5 mos., it was gratifying to know that I had protection with you that paid me weekly income plus my Hospital bills. Your new policy paid me over $1100.00 income.

I certainly recommend the new Hospital & Home Income protection for everyone.

Sincerely,

Charles W Schwartz

HE CARRIED COMBINATION COVERAGE

In addition to his new Hospital & Home Income policy which he took out in 1966 Mr. Schwartz was already carrying several other North American policies. Together his policies gave him these benefits:

Hospital & Home $100 per wk. Income Policy		
5 weeks 4 days in hospital	$557.16	
5 weeks 4 days at home	557.16	**$1114.32**
Accident Medical Expense Policy		**$1000.00**
Series 505 — Two Units		
Disability Income	$450.00	
Hospital & Misc. Medical	379.98	**$ 829.98**
Total Benefits Paid		**$2944.30**

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
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FOR LIFE AND HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK

Does your present planter meet the challenge?

Does it give you the speed, dependability, and accuracy you need? If not, look at the Massey-Ferguson line. Six precision-built planters (mounted and pull-type) with low profile design and shorter distances from seed plate to soil. Cells of long-lasting Delrin plates select seeds with unmatched accuracy. Unit planters are adjustable to match the exact row spacing you want—from 16 inches on up. All are available with attachments for fertilizer, insecticide, herbicide and minimum tillage. Tell your Massey-Ferguson dealer what you want to plant, how you want to plant it. He's got a new and better planter for you.



MF 37 Flexible Unit Planter adjusts to any row width from 20 inches on up. You can mount 2, 4, 6 or more units on a tool bar at desired spacings. Each unit is self-contained and permits 10 inches of up and down movement to compensate for rough ground. Planting depth is easily adjustable.

Take a closer look at

MASSEY-FERGUSON THE CHALLENGERS

Massey-Ferguson Inc., Des Moines, Iowa

New Flowers for 1968

by Nenetzin R. White

Now, once again there comes a beautiful array of new flowers, including the All-America Selections for 1968! These selections were made after vigorous, pre-introductory testing, sponsored by the garden seed industry of the United States and Canada. This is a non-profit, educational project, and impartial judges are responsible for the field trials and final evaluations. Entries come from all over the free world.

New hybrid geraniums win two silver medals this year. **"Carefree Scarlet"** is a very rich orange-red and **"Carefree Deep Salmon,"** a gorgeous, exciting color. Salmon has been coming up strong the past few years and now seems to be the "in" color.

"Carefree Bright Pink" geranium was awarded a bronze medal; its color is an intense rose-pink. All three germinate quickly because the disease-free seeds are scarified, and they branch out without being pinched or pruned.

Zinnia **"Wild Cherry,"** the other silver medal winner, has unique cherry-rose coloring. It is a giant, cactus-flowering hybrid, with blossoms up to 6 inches in diameter. Plants are about 2½ feet tall and are prolific bloomers of vigorous bushy habits. Frilled petals keep the large blooms airy and graceful.



NEW MARIGOLDS

Two new hedge-type marigolds were awarded All-America honors. Marigold **"First Lady"** is a bright yellow hybrid with 3-inch flowers. The plants are shorter and bloom earlier than an older favorite, "Yellow Climax." First Lady makes a beautiful brilliant display, even in our northern short-season locations.

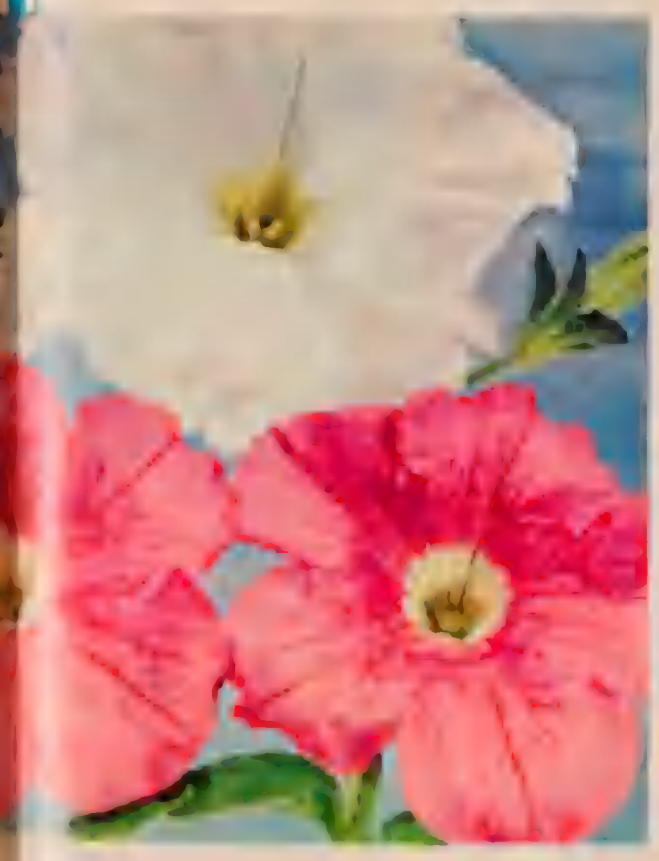
The second award-winning marigold is **"Orange Jubilee,"** a rich orange companion to First Lady. Both have large double carnation-type flowers; they are compact and busy, standing 18 to 24 inches in height.

Another new marigold is **"King Tut,"** an improvement on the popular "Spry." Its large 2-inch flowers have tufted centers of golden yellow with deep red outer petals. The uniform, mounded plants are covered with blooms.

▲ Shown with the new First Lady and Orange Jubilee Marigolds is Golden Jubilee, a 1967 award winner.



▲ King Tut Marigold



◀ WHITE SAILS and TICKLED PINK PETUNIAS

"Tickled Pink" petunia is a new giant-flowered grandiflora. Its 3½-inch blooms are true pink with dramatic white throats. These are held facing upward on strong husky plants, about 12 inches in height.



▲ VICTORY PETUNIAS

"Victory" petunia is a really outstanding intense red, a most sought-for color. It blossoms very early and has 2¾-inch blooms, considerably larger than standard red multifloras.

Put your orders in early for all of these new flowers, as seed supplies may be limited.



◀ CELOSIA PLUMOSA GOLDEN TRIUMPH and FOREST FIRE

"Golden Triumph" is a golden-yellow counterpart to the very popular celosia "Forest Fire." This new flower grows about 2 feet tall and has a pyramid of golden plumes. One big central spike is surrounded by as many as 10 side flowers. Both celosias should be considered, for they give a wonderful mass of color in the garden, are long lasting as cut flowers, and very useful for dried arrangements.

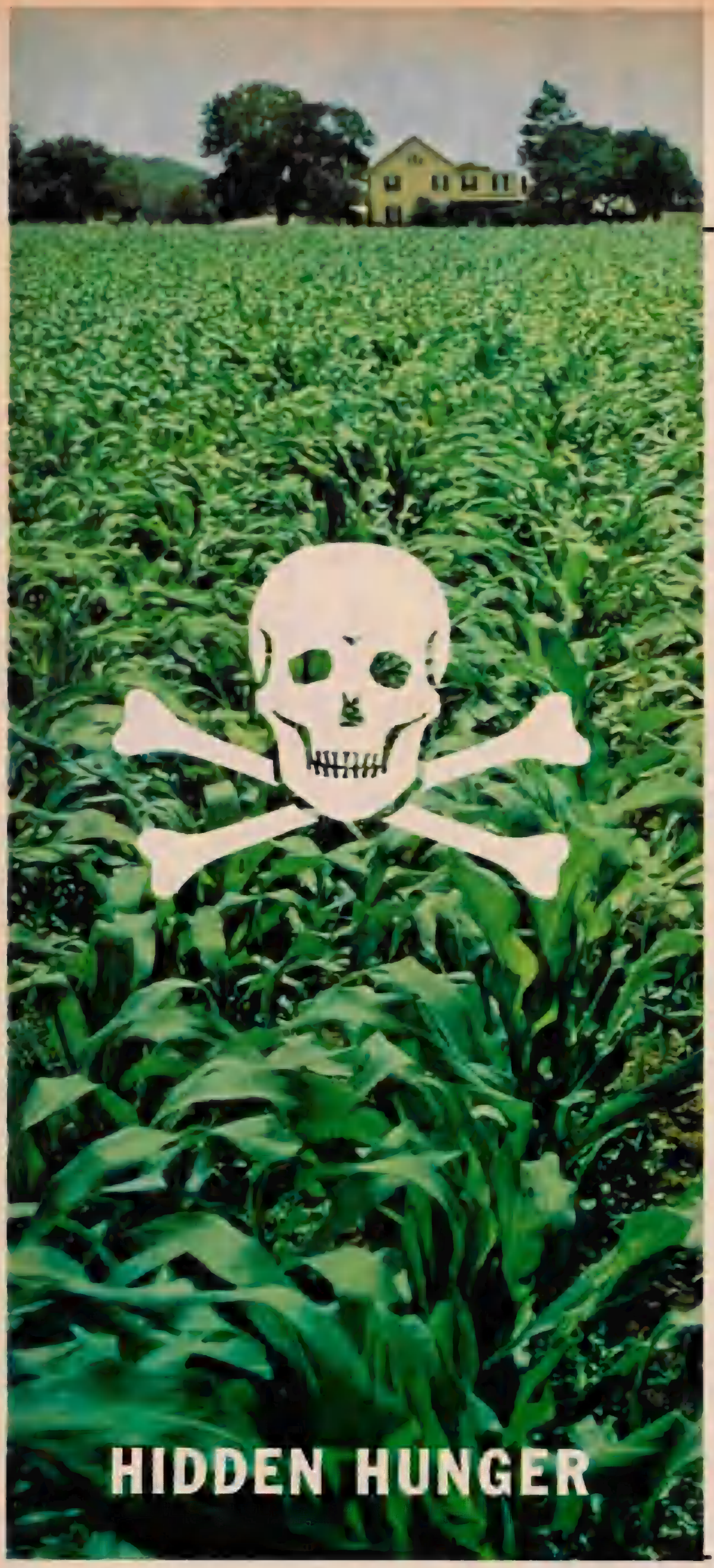


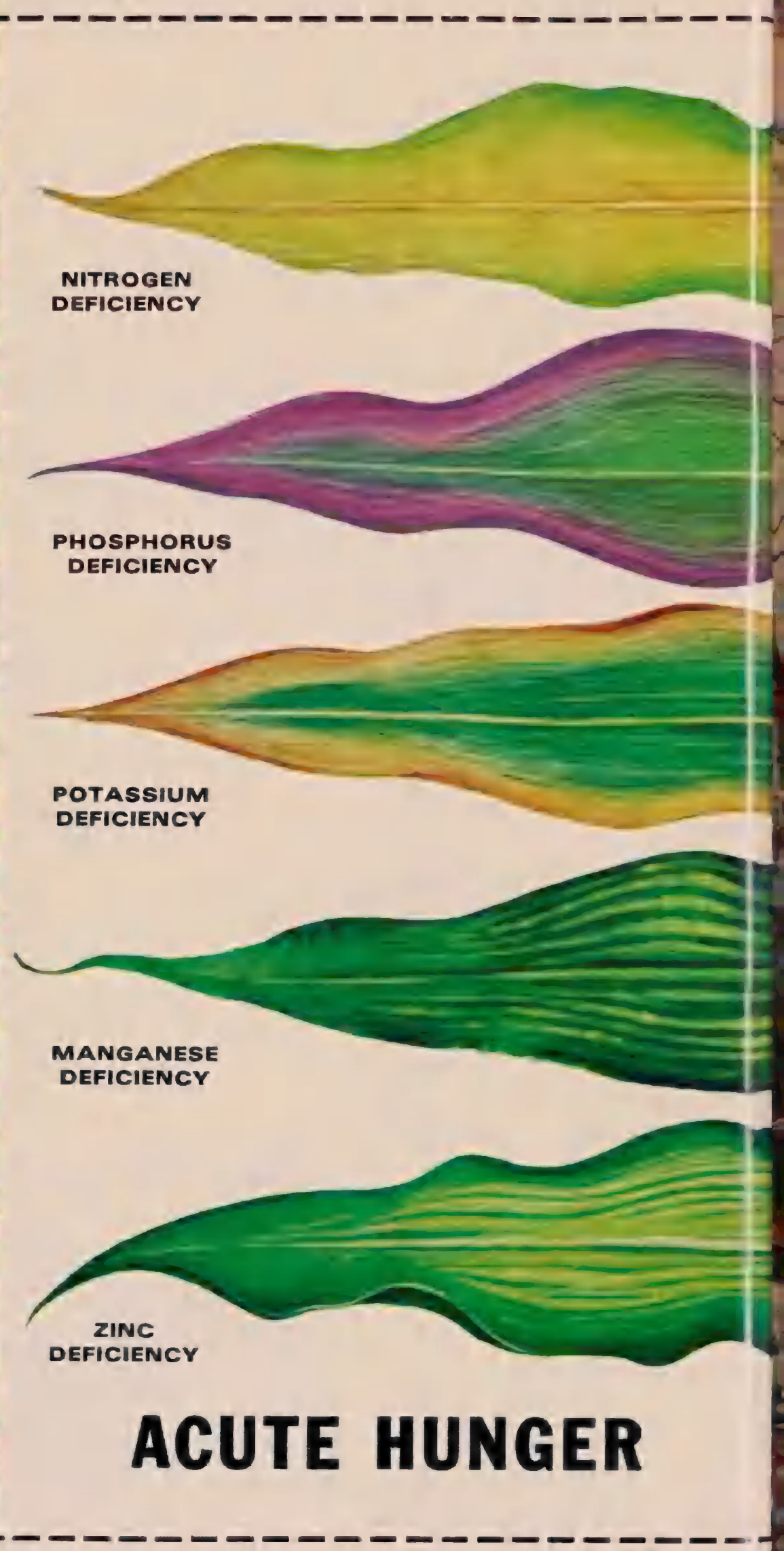
▲ BLAZE and AMETHYST VERBENAS

Verbena **"Blaze"** is probably the most brilliant, dwarf, and compact verbena yet introduced. It grows only about 6 inches tall, but spreads from 12 to 15 inches in width. A few florets show a bit of white eye, but it is considered a solid, bright scarlet. It seems to reflect light; better try this one!

Many of the all-season petunias should also be considered. If you have ever seen "White Sails," you will remember the pure white (yellow-throated) fringed flowers, about 3½ inches in diameter. These open early and continue to bloom all season, growing about 12 inches tall.

Photos: Joseph Harris Co.





Get healthy corn profits with BONANZA!

You can't see hidden hunger in corn. Most soil tests can't tell you about it, either. But, you'll know at harvest time . . . when your yields, quality and profits are *down*. You can protect your corn from hidden hunger . . . and acute hunger . . . with Royster BONANZA.

Scientifically formulated for *your* area, Royster BONANZA contains all 13 primary plant foods, secondary plant foods and vital Trace Elements your crops must have for top yields, highest quality and biggest profits. None of these 13 plant food elements can substitute for another; your corn needs them *all* . . . and gets them all with BONANZA.

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For The
Northeast Farmer

MARCH 1968

American Agriculturist
and the
RURAL NEW YORKER

One-two punch eradicates quackgrass.

Knocks quack out of your fields for a period of several years.

Not just for one season.

That's the big difference between quack eradication and mere control.

Quack eradication calls for two applications of Atrazine. 2½ pounds per acre before plowing. Another spray at the 2½-lb. rate when planting, or right after corn is in.

This split application is what it takes to kill the heavy, dense root system on this perennial weed. With the roots killed, it's several years before quackgrass gets started again.

As you'd expect, you also get season-long control of most annual broadleaf and grassy weeds.

And yield checks show corn averages 20 more bushels per acre with quack eradicated by the split application.

Just remember that corn should follow corn the next year because a total of 5 lbs. of Atrazine will have gone on.

See your nearby supplier for enough Atrazine to make your split application this spring at the right rates.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York 10502. ***Geigy/Atrazine***



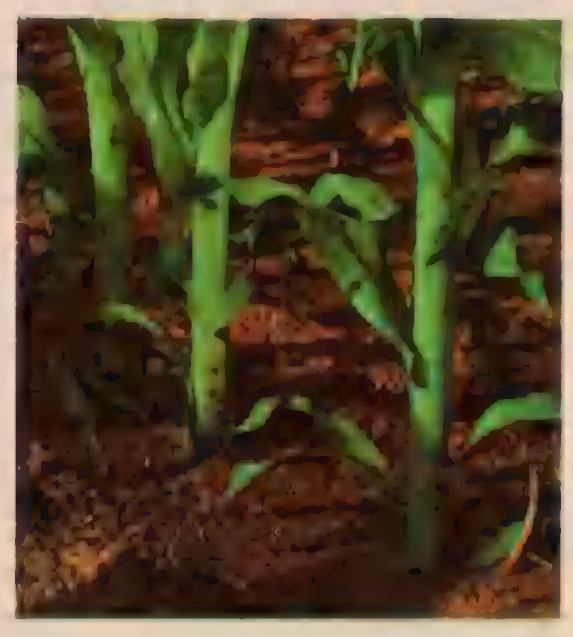
Make your first Atrazine spray two to four weeks before spring plowing of fields going into corn.



Quackgrass is a tough perennial weed. Eradication requires a split application of Atrazine.



Your second application of 2½ lbs. can be made while planting or soon after corn is in.



Corn yields average 20 bushels more per acre with quackgrass eradicated.

American Agriculturist and the RURAL NEW YORKER

For The Northeast Farmer

Vol. 165, No. 3

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OUR COVER

Sandra and Sally Whitcomb of Marlboro, New Hampshire enjoy sugaring time. Photo: Eric Sanford



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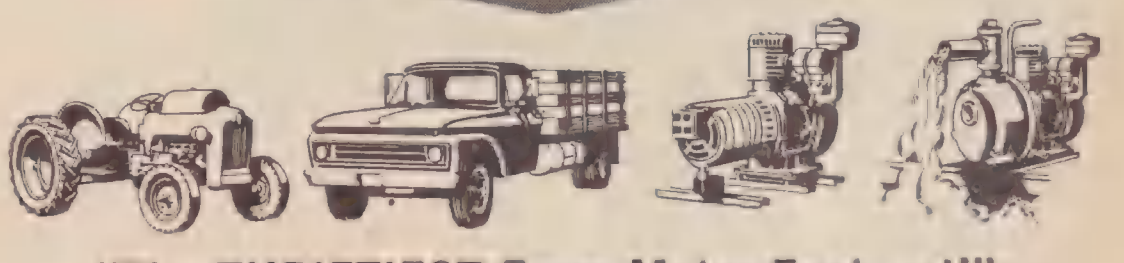
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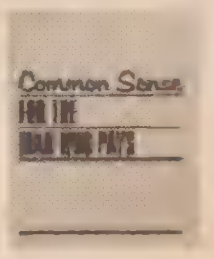
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EDITORIALS



by GORDON CONKLIN

THE RECKONING

After 3 years, Pepsi Cola's sugar beet processing plant near Auburn has ceased operation . . . at least under the management of Pepsi's subsidiary, the Empire State Sugar Company. The company is attempting to lease or sell the facility . . . originally scheduled to cost $22 million and ending up requiring nearer $30 million.

A new company, formed by F. H. Vahlsing, Jr. and named New York Sugar Industries, Inc., is trying to pick up the pieces by negotiating to lease the plant (with a purchase option). Unfortunately, the same economic forces will affect growers as those which caused the demise of Pepsico's operations . . . even though Vahlsing may pick up a bundle through very favorable negotiations with the desperate present owner.

The contract being offered by New York Sugar Industries specifies that, if the former Pepsi plant is not operated, beets will be shipped to Easton, Maine . . . and that Vahlsing will charge growers for any freight cost in excess of two dollars per ton. Beets are bulky, and it's questionable whether they can pay their freight over a distance of more than 500 miles.

As voices crying in the wilderness, AA writers raised questions about the project from the very beginning . . . and met a storm of criticism for being "negative." I only wish the final outcome had proven us wrong, because a lot of fine folks got hurt financially . . . and a considerable slug of taxpayers' money went down the drain.

To explore what really happened would require more space than an entire issue would provide, so I'll sum up my opinions briefly:

1. The people factor was overlooked or ignored . . . their management alternatives, their patterns of land ownership, their habits of land use.

2. Political considerations received too much priority . . . pulling the processing plant farther east than desirable, merely because Auburn was a city with a chronically-high unemployment rate. Geneva or Batavia would have been better choices.

3. A majority of economists predicted the fiasco from the beginning, but specialists of the "dismal science" were largely excluded from the feasibility and evaluation process.

4. Two drought years at the start cut yields to around 6 tons per acre in 1965, and 9 tons in '66. In the wet year of '67, it hit 14 tons . . . still below the national average of 17 tons.

5. A "credibility gap" grew up between farmers and those organizations . . . public and private . . . pushing the project. There was such an over-eagerness to "sell" farmers on sugar beets that real problems were pretended not to exist, and many a statement rang hollow. Uncle Sugar surely does sweeten the beet growers, but that doesn't make the business a lead-pipe cinch everywhere!

Sadly, we see once more that "all we learn for sure from history is that people don't learn from history." New York in 1842 (when AA was first published) was the number two producer of sugar among the states . . . second only to Louisiana. But the economics of sugar beet production changed, and it moved farther west. Abortive attempts to revive the industry in the Empire State were made in the early 1900's . . . and now again in the 1960's.

Sadder, but wiser, let's charge it up to experience and move on.

ALWAYS SCARCE

"You just can't find good hired help nowadays," is a comment I often hear as I visit with farmers. Actually, this situation is not new . . . and, strangely enough, it's probably a good thing!

Reliable farm employees have been hard to come by in these United States for a long, long time. In a publication entitled "Soil Survey of Cortland County, New York," published in 1917, there appears on page 11 this sentence, "Reliable farm laborers are scarce." Sprinkled through our bound volumes of the American Agriculturist, going back to 1842, are similar statements.

As for this state of affairs being desirable, let me remind you that maturing economies generally create more material wealth for most everyone (including farmers), in contrast to underdeveloped countries like India or China . . . where farm laborers are cheap. In other words, I'd bet that not an American farmer would vote to move to a country where farm labor is available for pennies a day.

Instead, he chooses to continue replacing relatively-expensive labor with relatively-cheap capital . . . in the form of silo unloaders, bulk tanks, bale throwers, tractors, electrical equipment, etc. This in turn boosts output per man ever higher . . . and enlarges the total goods and services available for use by all of our society.

Believe me, folks, we'd live in a vastly different . . . and to most of us, less desirable world . . . if competent farm labor were available in our nation for a dollar a day.

THE LURE OF LAND

No editor who follows the trends of the times in today's world would ever discuss a problem . . . it must be an "opportunity" or a "challenge." The baffled young executive went to his superior, you'll remember, and said, "Sir, I have an insurmountable opportunity!"

Anyway, I'd like to nominate what I believe will be a profound problem . . . challenge . . . or opportunity . . . in the rural Northeast over the next 25 years. It will be that of transferring land, some of it prime agricultural acres, into nonfarm uses. It's a process that has been underway for many years, of course, but it has intensified and accelerated in recent times.

Farmers own most of the land, but when it comes to public policies on land, nonfarmers have the votes. In fact, the Supreme Court in its one-man-one vote decision, specifically said that acres have no weight in the American political process.

Nonfarmers desire areas of well-tilled farm land reasonably near urban centers, but are reluctant to pay the price usually required to insure continuation of farming in such locations. Farmers like to see their land values soar as a result of urban penetration into rural areas, but resent the pressures and regulations . . . and higher taxes . . . that inevitably accompany such penetration.

Condemnation of privately-owned land for public use is to many a subject as sensitive as a boil on the end of the nose . . . in terms of the whole general approach, but especially in the matter of monetary settlement. Improvements in condemnation procedures on behalf of landowners have been made in some states, and more need to be made.

Over the last 25 years, the increase in value of farm real estate has been the most consistent performer among all the things farmers have to sell . . . per acre sale values trending steadily upward to a 1967 level five times that in 1940. So, Mother Earth has proved as much a mixture as any female . . . bringing with her plenty of problems, but nice to have around!

Amidst a wave of urbanization, farmers have an enormous stake in helping to shape the course of the Northeast's future in terms of land use.

If you're interested in an in-depth look at land-use problems and opportunities, write for a copy of the report of the New York State Commission on the Preservation of Agricultural Land, Box 23, Roberts Hall, Ithaca, New York 14850. Single copies are free.

THE IMITATORS

Now that the smoke has cleared just a bit, what light emerges from all the heat generated by the cow-milk replacers?

Well, for one thing, it appears to me that dairy organizations can't afford the luxury of going their own separate ways on this one . . . just for the pleasure of being different. It's time for milk cooperatives to cooperate for the good of the dairy industry. Even Russia and the United States would work together, I'll bet, if the world were invaded by hostile Martians!

Secondly, it's my belief that new product development is the long-run salvation of the dairy industry. I visited the other day with a potato processor, and he gave me a list of new products using potatoes that had been developed during the last 5 years . . . it was a list that went on and on! As a result of such innovations, per capita spud consumption has pulled out of its tailspin.

We're going to have to kill some sacred cows in order to move in developing new dairy products . . . get rid of some of the legislation, designed as protection, that now acts as a high fence keeping dairymen from approaching potential markets.

For right now, it seems to me that we should get quickly at the dairy promotion job with a post maul instead of a tack hammer. Milk and other dairy products are sold to the tune of $13 billion annually in the U.S., and my arithmetic says one per cent of this would be $130 million . . . compared to the $6 or 7 million spent by the ADA in milk promotion each year.

Furthermore, I'm in favor of collecting the Class I price for the skim milk being used in filled milk. Sure, the imitators may then switch to a completely nondairy mix . . . but there are taste and other problems to overcome. Eventually, a separate classification may have to be set up for skim going to filled milk use . . . so the skimmed milk can be flexibly competitive.

Finally, I believe we should authorize modifications of fat levels in cow's milk . . . and still be able to label it "milk." And we should be able to raise "solids not fat" (SNF) levels for better taste . . . and still call it "milk."

The dairy industry is not going to hell on a handsled, but it needs to make some changes if it wants to stay healthy.

American Agriculturist, March, 196



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*Yields harvested mechanically, without gleaning, from measured acreages, and calculated from scale weights on the basis of No. 2 Corn.





NEW TRIUMPHS FOR THE KING OF VEGETABLES

by Harmon Tupper



Photos: Courtesy of Produce Division Agway Inc.

IN May 1945, a stream of slim, square-sided little strips of potatoes cascaded from a production line in Queens Village, Long Island. Scorched at both ends, soggy in between, and objectionably sweet, these first commercially pre-cooked and frozen french fries seemed gastronomically an invitation to instant indigestion. Nevertheless, they triggered a revolution that has given the fresh-potato industry a long-needed overhaul, slashed culinary costs and saved infinite hours of kitchen labor, created new jobs for thousands, and built fortunes for a new breed of potato entrepreneurs. Vastly-improved french fries today outrank all other frozen foods in popularity. More than a billion pounds were marketed in 1966 . . . close to 300 million dollars worth.

(Copyright 1968 by Harmon Tupper)

While french-fry demand was accelerating, the processors developed co-products from leftovers: undersized tubers plus slivers and nodules trimmed off raw French-fry stock became frozen mashed potatoes, hash-browns, patties or puffs.

Long List

The processors then blitzed ahead with frozen versions of practically every other spud dish in the cookbooks: cottage fries, shoestrings, scalloped, creamed, au gratin; small whole peeled raw or boiled with or without parsley; roasted, baked, baked-stuffed, and so on through to novelties such as lightly-salted and spiced "potato rounds" for snacks. They introduced frozen "par-fries" for institutional or restaurant use to eliminate the old, time-consuming preliminaries of peeling, trimming and slicing raw potatoes. Lightly cooked, then frozen, par-fries require only 90 seconds for final frying.

In 1966, U.S. spud freezers used some four billion pounds of white potatoes (*Solanum tuberosum*) . . . enough to feed the entire population of the United States a daily potato for about two months. Millions of pounds are purchased by prefabricators of complete frozen meals for the armed forces, hospitals, schools, airlines, and other mass-feeders.

In fact, institutional buyers now consume almost 70 percent of the total output. They point out that pre-prepared, packaged items simplify inventory, reduce storage requirements, and assure dependable quality year 'round. Though processed spuds have somewhat less vitamin potency than fresh potatoes, the phenomenal sales indicate that hordes of consumers don't think this loss worth the drudgery of washing, peeling and trimming.

The boom has spread. Last year U.S. producers shipped nearly 9,500,000 pounds . . . the equivalent to more than 227 million servings . . . of potato flakes and granules abroad. Canadian processors in New Brunswick and Prince Edward Island are exporting frozen French fries to meet the unfilled demand in the United Kingdom. British, Dutch, Swiss and Scandinavian firms are freezing their own. "The potential market in Europe is tremendous," says a U.S. Department of Agriculture specialist. "The Europeans eat twice as many potatoes as we do."

Maine Giant

One of the largest of the new potato-processing plants is the ten acre, ultra-modern complex of Potato Service, Inc. at Presque Isle in the heart of Maine's huge Aroostook County, producer of 95 percent of the state crop. The plant began operations four years ago. It cost $5 million, and operates around the clock except Sunday. It contains the biggest climate-controlled potato storehouse ever built under one roof . . . capacity, 60 million pounds.

With 36 barn-size bins and a railway for 11 refrigerated freezer cars, the cavernous shed is thermally insulated and dimly lit by special anti-greening fluorescent tubes. (Long after harvest the potato remains a living plant that breathes through its porous skin, responds to injury, and is capable of being sunburned. If it is exposed for several days to light, its subsurface turns green and imparts a bitter taste from chlorophyll and solanine). Hundreds of thermostats register bin temperatures . . . inner and outer, upper and lower . . . on a master instrument panel. At this nerve center, a lone technician flicks switches and turns knobs activating dampers and fan motors to force just enough fresh air into the bin ducts to prevent rot without inducing shrinkage.

Knobs also control humidity and temperature. Temperature is reduced one degree a day to bring the natural 60 to 65-degree heat of the tubers at harvest down to a holding norm of 45 degrees, where they are close to dormancy. At lower temperatures, the potato's enzymes start to turn starch into unwanted sugars. At higher temperatures, the enzymes begin to transform the sugars into desirable starch . . . but sprouting and bacterial activity (which means spoiling) are also stimulated. So the operator juggles temperature, ventilation, and humidity in each bin of potatoes for a conditioning period of two weeks to two months, until tests reveal sufficient de-sugaring and starch buildup for a mealy, fine-textured, flavorful product.

While walking through the dusky storehouse corridors, you hear rushing water underfoot. Seemingly-endless streams of potatoes are racing through flumes to the plant's two automated French-fry lines, each 530 feet long, each costing $1.5 million. Glistening from their bath in transit, the spuds tumble from inclined slat-belts into a stainless steel tank, where a softening solution and high-pressure sprays wash away their skins.

Inspection

Five minutes later, the naked ovals roll into a brightly-lighted trimming room. More belts convey them to the flying hands of whitecapped and white-aproned women, who pare off blemishes and sidetrack deformed or undersized spuds to twin auxiliary lines for production of hash-browns and shredded "potato rounds" or puffs. Suspecting "hollow heart," the trimmers snatch up outsized tubers, halve them in a lightning cut, and send the pieces either on their way or into reject chutes. Under ideal conditions, a single operator may handle as many as 4500 potatoes an hour . . . better than one per second.

After trimming, the spuds slither into a battery of knives that slice them into strips and crinkle-cut the sides. Scraps for co-product salvage drop through agitating "shufflos" while women inspectors remove defective pieces. Then a bath in hot blanching water skills micro-organisms, diminishes fat absorption, and leaches out sugar that would otherwise cause uneven dry-color.

Sizzle Stop

Pale and limp, the cuts sizzle into frying vats of steaming vegetable shortening, a blend of cottonseed and soybean oils, which the factory consumes at the rate of a 60,000-pound tankcarful every 24 hours. A hovering line worker keeps keen watch on frying timers and temperature gauges. If undercooked, the strips are raw in texture and flavor; if overcooked, they bulge at the sides and collapse in the center.

"It's virtually a stopwatch operation," explains general manager Moe L. Kimmel. "The difference between undercooking and overcooking can be a matter of only 10 seconds. And if our controls don't add oil at just the

(Continued on page 41)

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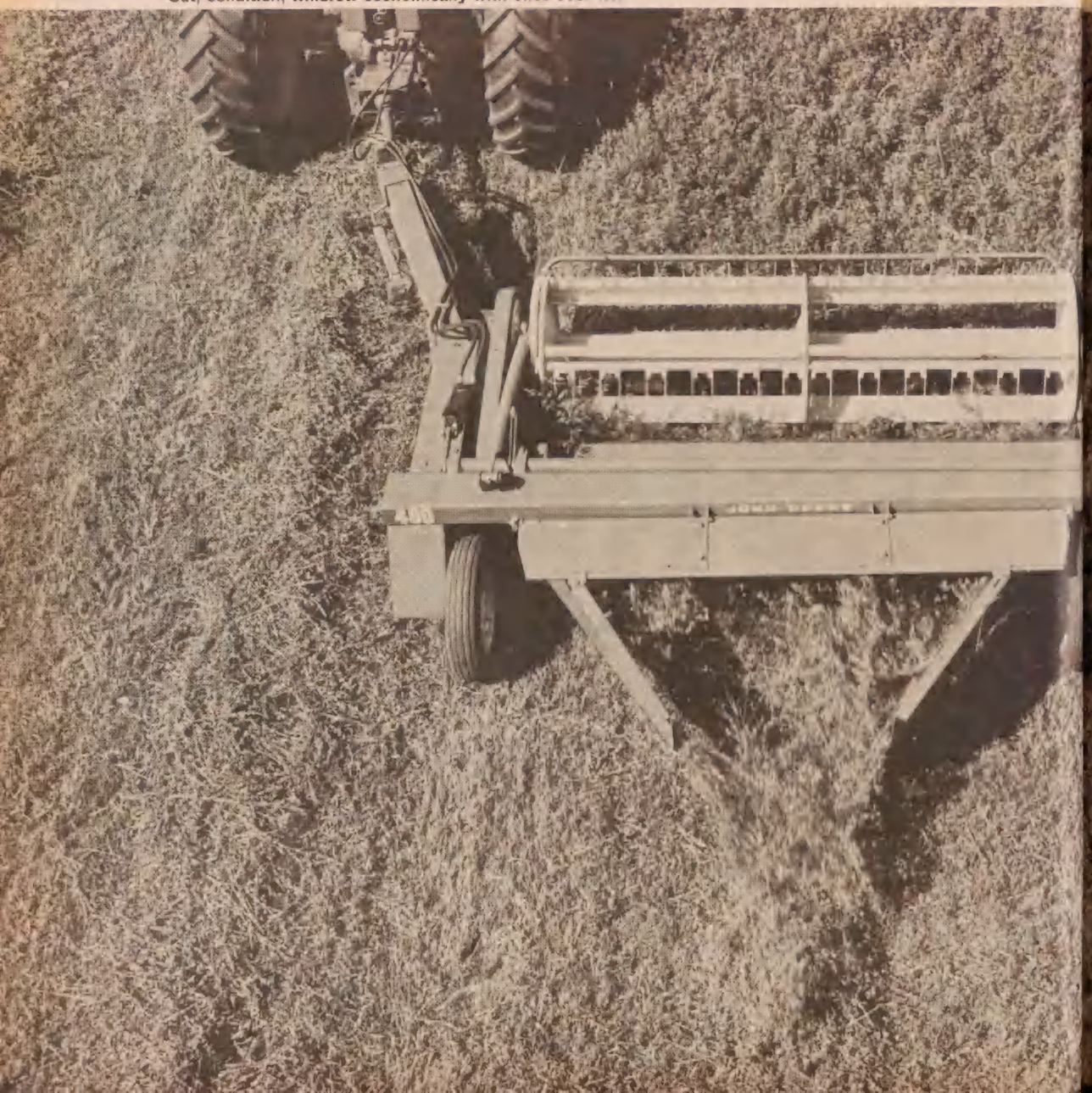
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Professor W. A. (Dick) Dodge, right, points out to Bernard Boyer the reduction in pipe size leading into moisture trap.



Mark Howe (left) hears from Dick Dodge the advantages of a plumber's cross at this location in vacuum line.



Raymond Bisson points at hairline crack that developed along seam of vacuum reserve tank.



Renfrew Gallagher (right) and son Tom run a California Mastitis Test on a recently-purchased cow.

His Mission Is

MANAGED MILKING

by Gordon Conklin

IT doesn't take much conversation to learn what W. A. (Dick) Dodge, Vermont Extension Dairyman, spends most of his time thinking about. For many years, he has worked with Vermont dairymen . . . and all the industries serving dairymen . . . to improve milk quality and milk production by encouraging better milking practices.

The word "mastitis" means somewhat different things to different people . . . but Dick considers it to be "any inflammation of the mammary gland, with or without bacteria." Inflammation is always accompanied by an abnormal number of leukocytes, a fancy name for white blood cells. A leukocyte is a soldier in the armies of the blood . . . ready at an instant's notice to commit itself in a fight to the finish against any bacteria or other potential jeopardy to the body's health.

These soldiers, of course, are killed in great numbers when they defend the bastions of health . . . and their bodies join living leukocytes in areas of infection. If the battleground is in the udder, naturally, these white blood cells get into the milk.

Lower Quality

Recklessly brave they may be, but their presence in milk is frowned upon. They don't endanger the health of the consumer in any way, but mastitis milk is lower in solids and fat than normal milk . . . and there is also a significant decrease in milk sugar and protein. Mastitic milk is often high in chloride content . . . which creates a salty taste . . . and often abnormally high in pH (a measure of acidity). Furthermore, production suffers in cows when leukocytes are constantly called in to fight udder irritation. In short, milk flavor and keeping qualities . . . as well as production level . . . are negatively affected by the leukocytes.

In modern lingo, the presence of leukocytes indicates protesting tissues. Now protesters, whether in the udder, or on the streets, produce very little. The milk-producing tissues (alveoli) don't produce when on a protest march either . . . and if they protest too long, they may turn to drugs . . . just like the hippies.

Here, too, the symptoms of the "sick" tissues can be cured by drugs . . . but the basic problem may not be reached. The hippies feel good when "high" . . . but their basic problems aren't cured by LSD, pot, or whatever.

In mastitis control, of course, drugs **can and do** play a constructive role in wiping out specific organisms in the udder (like strep ag), but some dairymen report towering frustration at constant mastitis trouble only rendered barely tolerable by drugs.

Mastitis Tests

Most tests for mastitis measure the number of leukocytes present, and they may be congregated in the udder with or without the presence of invading organisms.

In a 1965 mastitis survey project in Franklin County, Vermont, Dick and co-workers did some laboratory cultures on milk samples with California Mastitis Test readings of 0, trace, 1, 2, and 3 (ascending numbers indicate greater numbers of leukocytes). On 2,716 samples with CMT readings of 2, **only 49.8 percent were found in the laboratory to have any mastitis organisms present.** With 3,252 samples having a CMT reading of 3, only 58.4 percent contained culturable mastitis organisms . . . **and 41.6 percent showed no infection!**

Dick drew the logical conclusion from this and previous research that a lot of mastitis . . . with unusual concentration of white blood cells in the udder and consequently in the milk . . . is caused by something other than organisms. Supporting such a conclusion was other research showing that when teats were dipped in a "strep ag" solution, infection did not always occur . . . nor did it occur even when this solution was placed into the teat canal itself. But infection **did** occur if the teat canal was slightly scratched . . . or if the udder was overmilked for 10 minutes. So . . . to be udderly irritated is to be rendered utterly susceptible to an infection creating the condition labelled mastitis.

To help prevent such a calamity, Dick recommends a concept he's labelled Managed Milking . . . defined as, "Using properly functioning equipment to remove, without irritation to the mammary system, the maximum amount of top quality milk from cows, compatible with good breeding, feeding and cow comfort."

I visited, with Dick, some Vermont dairymen with whom he has worked over the years. On a snowy morning, we arrived at the Bernard Boyer farm near Williston.

Bernard bought this place in 1964 . . . with what he calls a "pipefitter's nightmare" making up the milker vacuum line. And the mastitis situation was a **dairyman's nightmare** . . . with around $5 a day going for antibiotics to fight mastitis.

Air flow, as well as vacuum level, is an important measure of how well a milker vacuum system is operating. Vacuum level determined at a pipe the size of a hypodermic needle may read as being sufficient . . . but quantity of air flow may be far below a level adequate for proper functioning of the equipment.

Anyway, a plumber reworked the Rube Goldberg setup at the Boyer barn so that the air flow (measured in cubic feet per minute, or cfm) was restored to adequate levels . . . and the mastitis problem dropped to a reasonable point. Then, after a time, it flared back again to alarming proportions!

Dick checked cfm's again . . . and got that same dismal reading. This time there was a plug of dried milk at an elbow in the vacuum line. Dick says, "At least

(Continued on page 18)



It Adds Up! More Profits from Corn, Vegetables, Potatoes, Tobacco, with Velsicol® CHLORDANE

SOIL INSECTICIDE

Chlordane gives you the long term protection you need at the lowest cost, on many crops! It stops all the major soil insects that attack corn, vegetables, potatoes and tobacco. It's easy to plan your crops with Chlordane, you can rotate and you can rely on the results because Chlordane is effective!

Use Chlordane on: CORN—it controls wireworms, white grubs, rootworms, and all other soil insects causing important losses.

VEGETABLES—for root damaging insects on practically any vegetable you grow, also formulations for leaf chewing insects.

POTATOES—You'll "Dig Big" with Chlordane, because it stops all soil insects of importance.

TOBACCO—there are no extra operations. Just add to your transplant water for pennies per acre. It controls wireworms and all other soil insects. Chlordane has an established residue tolerance of 0.3 parts per million on 47 raw vegetables and fruits. Take advantage of this modern agricultural chemical. Chlordane is the insecticide you can use on many more crops. Order it now!

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SOIL INSECTICIDE

Velsicol Chemical Corporation, 341 E. Ohio St., Chicago, Ill. 60611

THE GROWING WORLD OF
VELSICOL™

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King of vegetables

(Continued from page 8)

right moment, fatty acids build up and give biting flavor."

The cooked strips cascade onto vibrating link-belts which remove all frying fat before they are routed through a 172-foot subzero tunnel. Frozen stiff, they emerge 15 minutes later for further inspection by women, who pluck out overbrowned or broken pieces. These are saved for livestock feed . . . still another use for the versatile spud.

Meanwhile, technicians in the quality-control laboratory have been testing samples taken from the production line every quarter hour. A few morsels from each bath are nibbled for flavor evaluation. If samples aren't up to par, quality control director Joseph W. Cyr orders instant corrective measures by line monitors.

Packing Line

After mechanical screening for size, the finished fries are weighed and packed by automatic machines in cartons or polyethylene bags. Girls spot-check for underweight and overweight. At Potato Service's daily production of nearly one million pounds, a "giveaway" extra of only one-eighth of an ounce per pound amounts to almost three tons, worth $500 at wholesale. Stamped with coded lot numbers, cased packages are stacked in the adjoining refrigerated warehouse, where frosty-breathed handlers are bundled up like Maine trappers against the five-below cold.

Joe Cyr is also responsible for continuous bacterial counts in finished products, and throughout the processing complex. When operations halt for the lunch break, a sanitation crew goes over all equipment for possible contamination from occasional pockets of potato waste. Late Saturday night, production ceases for 24 hours while the crew boils out tanks and vats, scrubs and disinfects all conveyor belts and machinery. The plant's water supply two million gallons a day drawn from gravel-packed wells . . . is tested every morning; waste is channeled to a treatment installation and lagoon before release into the nearby Aroostook River.

Always Looking

There is a constant searching for and experimentation with new products at Potato Service. Current research is working on complete, ready-to-thaw-and-serve frozen potato salad. Technologists are also seeking methods to improve au gratin, lyonnaise and other so-called "casserole" dishes; some on the market tend to "weep" or turn soggy through water separation upon heating. If another project works out, popcorn vending machines will be joined by new coin-swallowers that heat and dispense frozen French fries.

"Spud farming," observes a leading Presque Isle potato buyer, "is probably the only business where you start out in debt, die in debt, and now and then make a whale of a lot of money in between." In 1964, when bad weather decimated crops in most other areas and pushed wholesale prices to a seven-month average high of $6.30 a barrel, growers hit the biggest bonanza in the history of Maine potatoes. At $6.30, the 74-acre farmer made a net profit exceeding $52,480, while the 200-acre operator cleared a minimum of $141,800.

Gamblers

Older generations of Maine farmers were notorious gamblers on the roller-coaster zooms and dips of potato prices on the cash market. Presque Islers love to recall an old farmer who got religion just before harvest and, firm in his stated belief that "the Lord will provide" left his crop in the ground and took off for a prolonged vacation in Florida. That winter prices dropped so low that his fellow farmers sold carload after carload for fear the bottom would fall out. Meanwhile, the old fellow rocked happily away in the sun as if his spuds had brought him a fortune. He returned home in the spring, dug up perfectly-preserved tubers and sold them for five times the winter prices. The Lord had, of course, provided . . . with uncommonly-heavy snow blankets that had kept His faithful believer's crop from freezing and turning to rot.

The constant demand of the processing houses may well change the spud farmers' traditional boom-or-bust economy to one of stabilized prices. A perishable surplus can now be converted into storable products instead of causing a price collapse.

Eating Change

In contrast to the frozen potato boom, our annual per capita consumption of fresh or "table stock" potatoes has plummeted from 198 pounds in 1910 to 75.6 pounds in 1966.* Early 20th-century masses of predominantly spud-eating immigrants swung to meats and other costlier foods as incomes rose. Slimming down became a national hobby at the expense of "fattening" potatoes.

Table stock industry leaders have tried to offset this decline with better-quality potatoes, uniform sizing, and attractive packaging. Messy 100-pound burlap bags are giving way to 50-pound fiberboard cartons, and for the consumer, five-to-ten-pound bags as well as plastic-wrapped trays of four to seven "Maine Russets" or "Idaho Bakers." That long-familiar bugaboo of housewives, sprouting, is being brought under greater control with nontoxic dusts and sprays that split and inactivate propagation genes.

There is an old belief that potatoes are fattening. Actually, white potatoes are relatively low in calories and contain practically no fat. Dr. J. B. Brown, director emeritus of the Institute of Nu-

(Continued on page 17)

* Our 1966 potato harvest totaled 30.7 billion pounds, twice that of the rest of the Western hemisphere. The Soviet Union leads the world with a harvest of more than 173 billion pounds in 1966, even though the yield per acre was much lower than in the U.S.

"Ro-Wheel herbicide incorporation gives full-width bands of control"

Roscoe Abbott, Convoy, Ohio

"With those wide bands and the field all flat without press wheel ditches, it's easier to cultivate and rotary hoe. You set shovels out farther to protect roots, and still clean the field. You can cultivate at higher speed." Here are more advantages farmers report:

Protect herbicide from sun, wind, erosion. A user says: "I'm not leaving my money out there on top of the ground to blow or wash away."

Eliminate erosion in the row. No press wheel ditches to start washing. Firm soil around seed, but leave level mulched surface that soaks up water. Eliminate harrowing.

Less dry-year risk. One farmer puts it this way. "Incorporating chemical in moist soil activates kill-power in 12 hours . . . rain or no rain."

Keep planting on windy days. Incorporated herbicide can't blow away.

Rotary hoe works better. Press wheels leave ditches so rotary hoe tines can't reach bottom where weeds sprout. RO-WHEEL® incorporators level surface, so hoe gets all the weeds.

Reduce crusting, speed emergence. Mulched surface doesn't form glazed crust as press wheels do.

Costs only 5¢* to 10¢ per acre for Ro-Wheel incorporators to protect your $5.00 per-acre herbicide investment. Use your present spray or granular equipment or get the units made for each other—Gandy granular applicators and Ro-Wheel incorporators.

**Cost of equipping new planter less rubber-tired press wheels, assuming 300 acres planted per year over 10 years. Costs 10¢ per acre for your present planter.*



Broadcast herbicides or insecticides pre-emergence or over growing crops with Gandy 3-point hitch unit. Precision-apply as little as 5 lbs. granular chemical per acre! Ground drive. 8, 10, 12, 14-ft. widths.



Apply anything—even chemicals—with this Gandy precision! Spread hundreds of pounds of fertilizer, lime, or land-plaster, or as little as 5 lbs. chemical, or broadcast seeds. Gandy Spreaders—6, 8, 10, 11 and 12-ft.



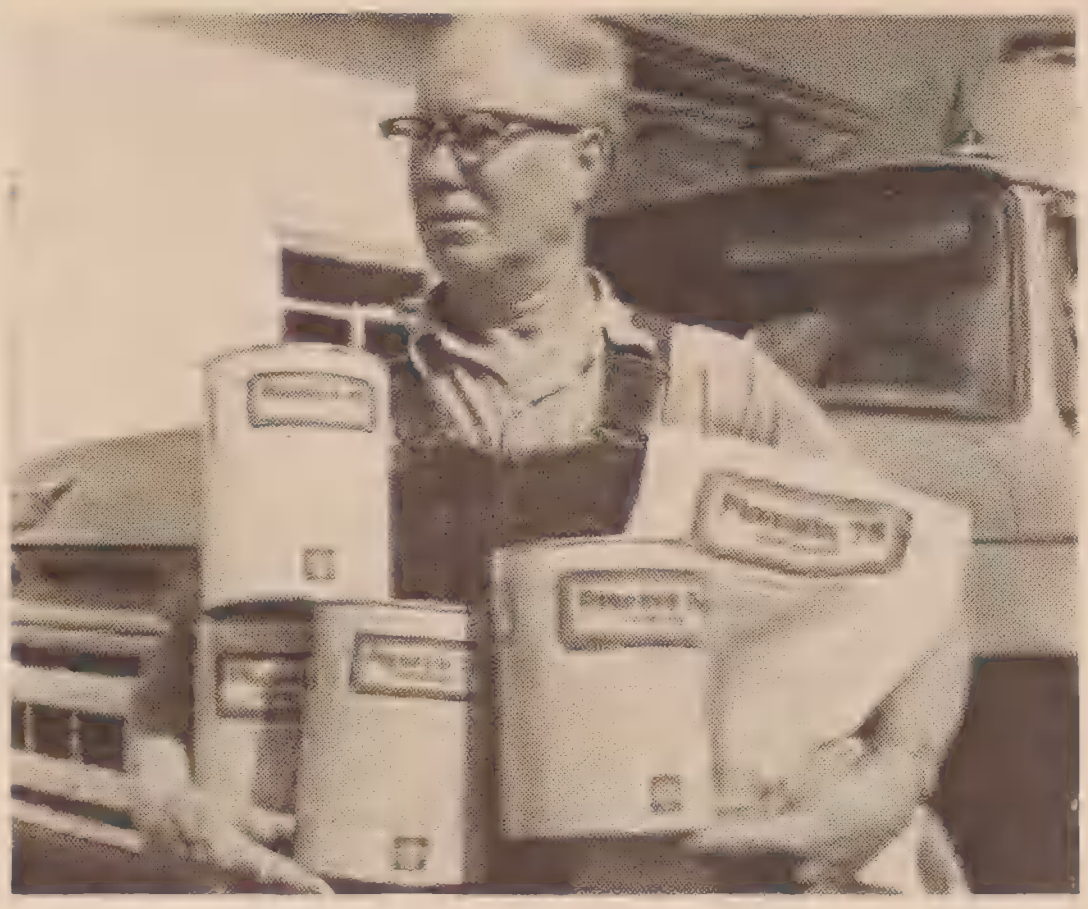
Check your acreages in government programs *before you plant,* with Gandy Measuring Wheel. "Pays for itself every year," say users. Measure accurately fast as you walk. Automatic counter. Only $37.50.



Mount Gandy Junior Applicators over press wheels for banding granules without incorporation. Gandy RO-BANDER® granule diffusers apply insecticide in 7-inch band over the row as recommended.

GANDY
Owatonna Minnesota 55060
SINCE 1916 WORLD'S MOST ACCURATE APPLICATORS

Write GANDY COMPANY, *15 Gandrud Road, Owatonna, Minnesota 55060, for literature on row crop and broadcast granular chemical equipment, RO-WHEEL® incorporators, Measuring Wheels and fertilizer spreaders.*



Soybean growers bought every pound of Planavin® Herbicide they could get their hands on last season.

Planavin® 75 Herbicide is more than just another good preemergence herbicide for soybeans. That explains why it sold out so fast its first year on the market—against established competitive products.

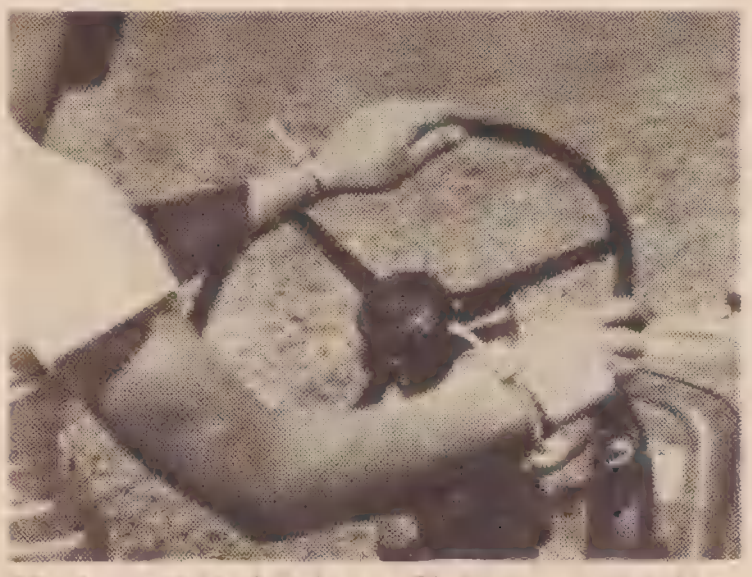
Along with first-rate weed and grass control, Planavin provides greater application flexibility than any other preemergence herbicide.

Soybean growers *really* found out how good it was when they put



Soybeans sprout and grow, but weed and grass problems sprout and die, when you apply Planavin before you plant.

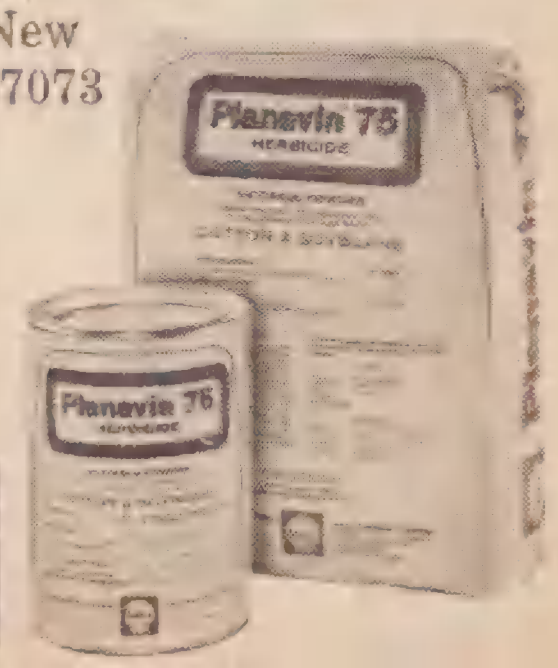
Planavin to work last season. It held the fort against most annual grasses and many broadleaf weeds, even in the face of some of the worst weather in years. It worked, wet weather or dry, right on through the season when weeds can strangle soybeans and limit yield.



You're not tied to immediate incorporation when you use Planavin. You have a few hours between spray and incorporation.

Planavin is a soil-incorporated herbicide—*the one you don't have to incorporate immediately.* It frees you from dependence on rain to carry it down, or activate it. Control starts as soon as it's mixed into the soil. There's no need for immediate incorporation because a Planavin spray doesn't lose its control power when exposed to a few hours of air and sun.

Planavin lets you spray large acreage fast, by ground or air. You can use large rigs, wide booms. There's no waiting for incorporation equipment to catch up. You can save hours of spray time. Note: (1) You can incorporate as you spray, if you prefer. (2) When you *do* incorporate, keep it shallow—no deeper than 1 to 1½ inches. Don't bury your Planavin below sprouting weeds. (3) Per acre rates can vary, from as little as 1 lb. on light soils, up to 1½ lbs. on heavier soils. Ask your local authorities for the rate recommended for your soil, and read the label on the Planavin package before you make your application. Shell Chemical Company, Agricultural Chemicals Division: 212 S. Central Ave., Clayton, Missouri 63100; 814 Northwest Blvd., Columbus, Ohio 43212; 2299 Vauxhall Road, Union, New Jersey 07073



SHELL



O'ER THE FIELDS WE GO!

MORE and more farm and rural folks are finding that snowmobiling is a winter natural . . . for fun, income, and doing vital chores.

At the close of the 1966-67 snow season, 200,000 snowmobiles were in use across the country. That figure probably doubled during the winter of 1967-'68. Small-town sales are skyrocketing and urban sales are not far behind, especially in cities edging farmlands that are opening up to accommodate the new sport's enthusiasts.

Exodus

An increasingly familiar sight is the weekend exodus from the city as families, snowmobiles in tow, set out for snow cover. The rural community is scrambling to meet the demand. Many farmers are opening their fields and in some cases their farmhouses, to weekenders for snowmobiling. Others find snowmobilers ready and willing to pay for evening spins around the fields.

Farm families that already owned snowmobiles, and knew first-hand how much fun the vehicles provide, were first to see the income possibilities from snowmobile trails on their lands during the winter months. Snow-filled pastureland adds up to an unlimited stretch of ideal snowmobiling tract. And for a nominal admittance fee, urbanites share the resources.

Advice

Property owners involved in this winter market offer tips for potential lessors. First, become familiar with snowmobiling yourself so you can brief visitors on safety basics. Keep first aid kits and extra gas supply handy for those who come unprepared. Too, a thermos of hot coffee has revitalized many a snowmobile party.

Likewise, establish and explain rules of common courtesy to protect your property and that of your guests. Posting trailmarkers helps. By setting up trails from field to field, you'll avoid fence damage and provide more extensive fun areas.

Problems

Before you allow a few people to use your acreage without charge for snowmobiling . . . or if you make it a business venture for profit . . . better check with your insurance agent (and maybe your lawyer) regarding liability in general, and liability insurance in particular. Bills have been introduced in New York's legislature to lower the responsibility toward others of landowners who merely give their permission for the use of their land for snowmobiling.

Juries have sometimes been rough on landowners and saddled them with some measure of responsibility for accidents to people who asked such permission . . . legally construing that assent implied a degree of invitation. It is important to rural and urban people alike that landowners be relieved of liability for people . . . such as snowmobilers . . . who come on the premises by permission. Commercial snowmobile and winter sport operations, of course, must carry a heavy responsibility (legal and moral) for their clients.

Extra Bonus

Farmers reap an extra bonus from the track-driven runabouts . . . snowmobiling fun for their own families. No part of the acreage remains inaccessible with the go-everywhere vehicles.

It's no surprise that snowmobiles are weathering the stiffest winter tests. They cut their teeth in the barren northland of Canada. Born to take over the work of dog sleds, the vehicles equaled then bettered man's best friend.



Now, more than ever, Dacthal® weed control pays you back in potatoes.

Get DACTHAL at the new low price.

Almost anyone who has tried it will admit that DACTHAL is the premium pre-emerge weed killer. But, the price has been a little high for Irish and sweet potatoes.

Now the price is right, thanks to a new manufacturing process. Now you can broadcast DACTHAL for about what it cost you to band it before, and save cultivating the middles.

When you do, you'll get season-long control of many weeds and grasses, with no harmful after-season residue. You'll get easier application, with only light incorporation recommended (or none at all in some areas).

And you'll get healthy potatoes, because DACTHAL herbicide is as gentle to potatoes as it is tough on weeds. In fact, potatoes seem to *flourish* in fields treated with DACTHAL—even more than you'd expect just from eliminating weeds. (We don't know why this is true—if you find out, let us know.)

No wonder we say the best weed killer is also your biggest bargain. Get DACTHAL at your favorite farm store. Diamond Shamrock Corporation, 300 Union Commerce Bldg., Cleveland, Ohio 44115.



Diamond Chemicals

DACTHAL® for weed-free potatoes



by Robert Clingan

NO SUBSTITUTES ACCEPTED

We live in an age when scientists, industrialists, and advertisers pride themselves in being able to substitute man-made artificial materials for the more natural products with which men have lived for a long time. Synthetic fibers have challenged the sheep breeders' income and defy customers to tell the difference. Artificial plant and flower makers are even reproducing nature's imperfections. A visitor to a public place of business or entertainment will walk across a room to feel a leaf to determine whether it is real. Atomic energy may eventually displace coal, gas, and water as a source of electricity to produce power.

In all this feverish search for substitutes . . . some successful and some not . . . it is well to remember that there is no substitute for personal integrity, for human character in the best meaning of that word.

For example. The building of a successful marriage requires that kind of character and personal integrity that keeps the fires of mutual trust alive. Marriage can survive economic privation and breaks in health, but it has difficulty surviving a loss of mutual trust. Successful marriage partners can safely question each other's good judgment, but never each other's sincerity and truthfulness.

Personal integrity is also essential to the life of a young person who would advance in the business or professional world. As young people prepare themselves for the future they are told of the importance of mastering subject matter measured by grades. The value of good work habits and learning to use one's time wisely is also stressed. They are told to learn to live with and communicate with other people. Too little has been said about the importance of character and personal integrity. They need to see that dependable persons of high integrity are always in short supply. Character is essential if one is to be given a position of responsibility fully equal to that person's education and ability.

Personal integrity is also essential to the expansion of business opportunities. I have heard Professor Lincoln Kelsey of Cornell point out that business expansion depends on credit; credit depends on trust. The basic condition of trust is the character of the persons involved in the transactions.

Even in the world of international diplomacy personal integrity is highly important. Many fairly-impartial observers and new analysts believe that one reason it is difficult to get peace talks going in Vietnam is the so-called "credibility gap." So many public pronouncements have proved only partially true that even neutral nations hesitate to accept our public statements at face value. It is not only important to be persons of integrity . . . it is equally important to have our integrity recognized and accepted.

The old mail order catalogue always had a box to check if you were willing to accept substitutes. When it comes to character, integrity, sincerity, truthfulness, and honesty in all of its forms, let us write across the pages of our lives, "No substitutes will be accepted!"

King of vegetables

(Continued from page 14)

trition and Food Technology at Ohio State University, points out that "they are much less fattening than breads, cereals and meats." Three-and-a-half ounces of 64-percent-lean club steak, for example, represent 401 calories . . . as against 93 for a baked potato and 65 for a mashed potato with milk added.

Like bananas, spuds have a high satiety value, and impart a full-stomach feeling that checks overeating. Sodium content is so slight that the American Heart Association recommends them for low-salt diets. They have more vitamin C . . . ascorbic acid that strengthens blood vessel walls . . . than the average vegetable. (Our ancestors escaped scurvy by eating stored potatoes in winter; sailing ship crews for the same reason ate potatoes preserved in molasses or vinegar). Crossbreeders are now interested in new strains with a higher natural content of vitamin A, the growth-stimulating, anti-infection substance in which potatoes are signally deficient.

We may never achieve the ideal of Wheeler McMillen, former editor of **Farm Journal**, who suggested that "maybe someone could build the marvellous flavor of chicken gravy into a potato." Even so, it seems likely that, as research continues, *Solanum tuberosum* will steadily reinforce its reputation as the king of vegetables.

American Agriculturist, March, 1968



Seed-Money for farm and personal financing

This is the money that helps you grow. Money for livestock, feed, fertilizer, equipment, expansion and for every personal requirement. It's money from your local Farm Credit Service — the Service owned and operated by local farmer-members and backed by the Farm Credit Banks in your district.

"Seed-Money" is only part of Farm Credit Service. Another big part is people, and the key person is your local Farm Credit Representative. He knows you and your territory. He understands your needs and is always ready to help. He'll arrange for down-to-earth rates, terms to fit seasonal requirements, and interest that's charged only on your unpaid balance.

To finance anything from feed to a home freezer, see your Farm Credit Representative. He can be your personal banker for every type of financing.

Your OWN Farm Credit Service

OFFERING

LAND BANK AND PRODUCTION CREDIT LOANS

FARM CREDIT SERVICE

Managed milking

(Continued from page 12)

in one spot where the vacuum line changes directions, especially at a riser, put in a special fitting for cleaning the line. A T-fitting is better than an elbow, and a plumber's cross is better than a T!"

On the day we visited Bernard and his 110-crew herd, only one obvious problem remained in the vacuum line . . . the 1¼-inch pipe from the vacuum pump was reduced to a ¾-inch line as it went through the moisture trap just ahead of the pump . . . then back to 1¼ inches beyond the trap. Dick comments, "It's common to drop from 24 cfm's to 18 on the line from one side of the moisture trap to the other . . . any choking of air movement, for any reason, lowers the efficiency of vacuum pump."

Should Slope

Squinting along the length of the vacuum line running the length of Bernard's long barn, Dick went on, "I wonder why we've recommended for so long making these lines level. They **should** pitch an inch in every 20 feet so they'd drain to one end. Especially during the seven cooler months, there's bound to be some condensation in every barn's vacuum lines. Milk vapor gets through the check valves at every milking and condenses inside . . . and every now and then a good slug of milk inadvertently gets pulled in!"

Next we moseyed down to the Mark Howe farm near Tunbridge. Here's a 20 to 25-cow purebred herd that has won the Holstein Progressive Breeder Award every year since 1955 . . . and has an HIR production record (ending April, 1967) averaging 18,448 pounds of milk and 740 of fat per cow.

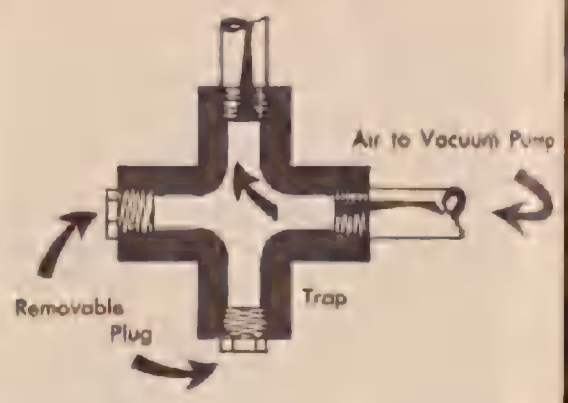
A few years ago, though, Mark was spending from $100 to $200 a month on veterinarian bills in an attempt to get mastitis under control . . . treating 5 or 6 cows nearly every milking. It turned out that his vacuum pump was too small, and his vacuum line (¾-inch) was also too small. A bigger pump and a bigger line (1¼ inches) gave immediate results . . . and mastitis problems have been at reasonable levels since. Some cows had developed chronic udder problems before the change was made, and these had to go down the road.

Dick took the vacuum regulator apart at Howvale Farm the day we visited, and found it needed cleaning . . . as do all such devices periodically.

Bisson Place

Next step was at the 75-cow Raymond Bisson place on the outskirts of Barre. Four years ago, Dick brought out a class of dairymen in "on the job" training, and found an unusually large number of high CMT readings.

Out came the trusty airflowmeter, and a finding of only 5 cfm's **at the vacuum pump** to operate 3 units. Dick recommends at least 4 cfm's of air flow per **unit** (American Standard). The pump was woefully small, so the cure was obvious.



A plumber's cross, unlike conventional elbow, provides a clean-out opening in horizontal line, as well as a cleanable vertical trap.

These changes helped enormously, Ray reports . . . production began to rise steadily, and he stopped losing so many good cows . . . especially 5-year-olds . . . that previously were being forced out of the milking string by udder problems.

That "Grandmas pay the bills" has long been known by most dairymen. A high cow-turnover rate is one way of "keeping clean" from mastitis, but it's also a good way to end up in the poorhouse . . . er, in the ranks of the underprivileged of the Great Society.

Things looked fine . . . then, as at the Boyer farm, the roof fell in again! Mastitis flared up in November of 1966. It turned out that the vacuum pump reserve tank had sprung a hairline leak along one welded seam . . . and once again vacuum levels and cfm's of air movement had slumped. The episode was further proof of the importance of milking system performance in mastitis control.

Gallagher

Finally, we visited with Renfrew Gallagher and his son Tom, who are dairymen and cattle dealers at St. Albans. They give a CMT test to all animals that have freshened, and plan on selling none that show mastitis. Dick reports that the Gallaghers have a reputation far and wide for sell-

(Continued on page 19)

NITAN (TM)

solution nitrogen made by Agway, applied by Agway– is your least-cost route to nitrogen fertilization.

Agway NITAN—newest addition to Agway's growing program for cropmen—is your least-cost route to fast growth in early spring. Even cheaper than applying nitrogen yourself. Your savings on labor are an extra bonus.

NITAN goes to work immediately—in the early spring, when soils are still cold. You can get a big jump on spring growth—with earlier and larger yields of first cutting of grass hay and big gains in grain yields. In addition to top dressing and side dressing to promote early growth, NITAN is also recommended for plowdown on crops like corn.

Agway custom application service and NITAN are now available in more communities than ever before. Be sure your name is at the top of the list for NITAN application service. Call Agway now. (Still prefer dry nitrogen? Call for Agway 33½ N Ammonium Nitrate and Agway U-45 Urea.)

Agway

COMPLETE CROP SERVICE

your growing business

KEEPING HELP

UNIVERSITY of Wisconsin researchers recently polled 61 farmers who have been successful in hiring and keeping farm workers. Answers to a series of questions reveal how these top labor managers handle personal relations with their hired help.

Nearly all successful labor managers agree that it is important for the "boss" to consult the hired help when deciding on a solution to a problem. Because employees are familiar with a job, they frequently can make valuable suggestions for solving problems that might arise. More important, seeking an employee's advice makes him feel that his ideas count, and that he has a part in managing the business. Only two managers felt that they would lose respect if they sought their employee's suggestions.

About 50 of the 61 managers disagree with the statement that "a supervisor will get more work from his employees if he watches them closely." Most felt that an employee does not want to be constantly watched, and that a properly-trained employee should be capable of doing a good job on his own.

However, almost all managers feel that periodic checks on job performance are valuable. Even when employees are properly trained, changes and new problems may develop which require advice from the manager. These managers also feel that they must demonstrate through their own conduct how they would like the employee to perform various tasks.

Train Well

Nearly all managers agree that it pays to spend a lot of time with a new employee to make sure he is well trained for the job. They recognize that the amount of time spent in on-the-job instruction is well worthwhile in preventing later misunderstandings.

If misunderstandings or mistakes do arise, few of these successful labor managers would humiliate an employee for making the mistake. A constructive explanation of how the mistake can be avoided in the future is better than an embarrassing reprimand.

Most managers recognize that a worker's attitude can have a lot to do with job performance. Nearly all agree that praising an employee for work well done is more effective than criticizing mistakes. These managers also recognize that there are rewards for job performance other than money.

Although money is important, workers also need to know how their job fits into the larger operation, why he is doing what he is doing, that he is important to the over-all operation, and that his suggestions and ideas are needed and important. Being proud of work that one does gives a kind of satisfaction that money cannot provide.

Managed milking

(Continued from page 18)

ing "clean" cattle.

Here's a summary of suggestions by Dick Dodge on mastitis prevention by "managed milking" and just good management generally:

1. Every milking system needs regular maintenance . . . such things as oil change; relief valve, pulsater, and vacuum line cleaning; changing of inflations and all other rubber parts periodically. He'll provide you with a "Milking Machine Maintenance Chart" if you write him at University of Vermont, Burlington, Vermont 05401.

2. At least 4 cfm's of air flow per milker unit (American Standard) are needed for good milking. If you don't have this, consider a new pump . . . or look for a choked vacuum line somewhere.

3. Milking procedures are vitally important . . . stimulation of udder by warm wash, attaching teat cups a minute later, removing teat cups carefully (no yanking). There's nothing mysterious about doing a good job of milking, but all too many dairymen fail to do as well as they know how! Overmilking remains one of the most common errors.

By the way, Dick states flatly that . . . regardless of the type of milker used . . . no man should handle more than two units. And he deplores the practice of milking through weigh jars, a practice that may seem faster, but causes wide fluctuation in vacuum levels.

In an age of protest . . . everyone seems to be mad about something . . . I suppose it's to be expected that the mammary tissues of Old Bossie will join in the general hullaballoo and become inflamed. But whenever it happens, some dairyman loses income . . . today from reduced milk flow, and tomorrow from the sale for beef of an otherwise good dairy cow. And, perhaps worst of all, every quart of poor quality milk creates another customer for imitation milk.

Every dairyman owes it to himself to stay out of the ranks of those troubled by udder anarchy in the dairy stable.

American Agriculturist, March, 1968



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Personal Farm Experience



HELP YOURSELF!

Recently I participated in a "happening" that is a far cry from the "happenings" so frequently publicized in today's press. I thought I ought to record it on paper because I seldom see note taken of the things that really mean America, and that exemplify the spirit of the people that make this country great.

It wasn't a big thing, but it reaffirms a basic principle . . . people are happiest when they are helping themselves.

There are ten houses on my street, and there are children in all but two. These children have to go to the end of the street to get on the school bus, and sometimes the wait in bad weather is kind of rough. Naturally, the need for a shelter of some kind was suggested.

Now I can't be sure, but at least I never heard anyone say we ought to go to the school board, the town, or any other "giver-of-gifts" to have this need taken care of. Nobody wrote to Uncle Sam with a request for help, and I doubt if even the help and advice of Ann Landers was sought.

Instead, a strange thing happened. These people began to figure out how to do the job themselves. And stranger still, the kids took hold and said they'd raise the money if the fathers would build it. And they did!

With little parental aid, they held a car wash that garnered $30, and an attic sale that netted over $100. For the attic sale they spent two weeks collecting castoffs, marking and pricing, making and putting up posters, getting free advertising in the local paper and on the radio. Not only did these events soak up a lot of energy, but think of the training these kids got in the details of business.

After the money was raised, the fathers were prodded into action. One was a carpenter by trade and to him was delegated the job of making a bill of materials and doing the buying. Finally on a bright September Sunday, the job was done with the whole neighborhood in attendance. A shelter 14 foot long by 6 foot deep and with plank benches inside now keeps our kids out of the weather.

In reverting to the old principle of self-help these people once again enjoyed the satisfaction of accomplishment and the pleasure of community labor that was once common in rural America with its barn raisings, huskingbees, and exchange of help at threshing time. Our urban people have long been denied this kind of gratification by the "do-gooders" who sit in high places laboring under the delusion that the great god of government must make all plans for all people, and that by taking from those who have and giving to those who have not, you can create a happy people.

This "screw-ball" thinking is behind much of our present-day urban ills, and has led us a long way down the road to socialism. It's time we began to take another look at our national philosophy and get it back on the track of helping people to help themselves. — *J. R. VanAllen, Litchfield, Connecticut.*

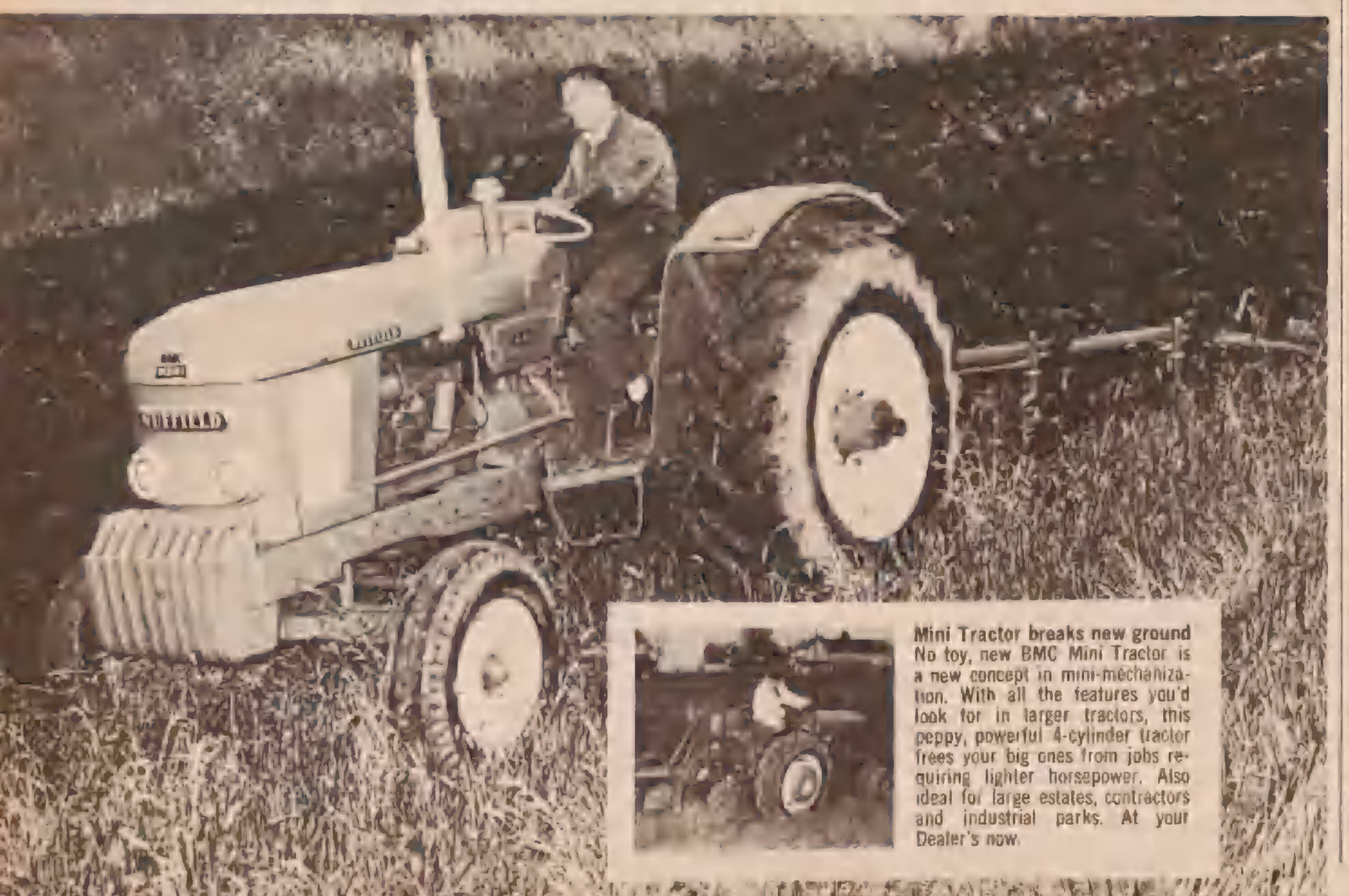
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CAGE BROODER

A few days ago I saw the new cage brood house on Erwin Frazier's farm at Covert, New York. You really have to see it to get the full picture, but I'll try to describe it as best I can.

There are four rows of cages 160 feet in length. Each row has three tiers of cages, and the house is 36 feet wide.

The cages are 24 inches by 20 inches, and each holds 15 baby chicks until they are six weeks old. At first only the first two tiers are used, then five pullets are taken from each of two cages and put in an empty cage in the top tier. Here they live until they are 20 weeks old and ready to lay. In fact, each tier has a tray to catch any eggs that may be laid.

The light is completely controlled. Even the ventilation intakes (4-inch opening around sides of building as well as the eight exhaust fans) are arranged to exclude all light. By controlling the light at any season of the year, pullets can be brought into production at almost exactly 20 weeks of age. With all fans running there is a reading of eight inches of vacuum inside the house.

Two batches are to be raised

(Continued on next page)

every year, allowing time to clean the house thoroughly between batches.

The pit below each tier of cages is deep enough to hold the droppings for 20 weeks if conditions are unfavorable for cleaning oftener.

Erwin built scrapers that are mounted on a small tractor . . . scraping droppings from two tiers of dropping boards on both sides of the aisle at one time. When scraping outside rows, either the right or left scrapers drop out of the way to a vertical position.

The same tractor scrapes droppings from two pits at a time to one end of the building where a cross conveyor takes them to a spreader. The pits (which have no drains) are then flushed and the manure is pumped into a tank, after which it is spread on fields. Erwin has an arrangement with a farmer to haul away the manure.

Feeders and waterers are automatically controlled, and the water is automatically turned off when lights turn off . . . a practice Erwin believes he may change. Drinking water is filtered to prevent possible clogging of the system. The first batch of chicks (21,160) went into the cages about the middle of January. The pullets are being grown on contract for one egg producer. —*H.L.C.*

SLOPING SILAGE

Through my own experience, I believe I've hit upon a big labor-saving idea that would help farmers who don't have a silo unloader in use.

To avoid the heavy job of pitching ensilage out of a door that's on a level with . . . or even above . . . the worker, I arrange to unload the silage so that the upper level of the feed slants downward toward the open door that I happen to be using. It is surprisingly easier on the muscles, and it seems a much quicker and lighter job in every way.

Roughly, for a 12-foot silo, I would figure on one door below the highest point of the ensilage. For a 16-foot silo, a door and a half to two doors below works well.

It also seems to help to have the ensilage cut fine. —*Robert S. Albrecht, Pleasant Valley, N.Y.*

SPEEDY SOWING

George Fesko of Skaneateles, New York, hired a bulk fertilizer spreader to plant oats in 1967 . . . 70 acres the first time, planted in three hours! It worked so well that he plowed another 30 acres and had them planted the same way. Contrary to the usual situation, the earlier-planted crop yielded 60 bushels per acre, the last 30 acres at a rate of 80 bushels.

The bulk spreader sows a swath 40 feet wide. Next step is to drag seed in with a springtooth harrow set deep. Oats were seeded at the rate of 120 pounds per acre.

In the fall of '67, George used the same method of planting for 80 acres of winter wheat . . . sowed at the rate of 3 bushels per acre. The time-saving advantages . . . for both men and equipment . . . are fantastic.

For the past three years, George has been hiring airplane application of alfalfa seed on wheat . . . in late March or early April. George reports a pretty good catch with this method, but he wonders whether an even better way might be a battery-operated cyclone seeder mounted on a snowmobile.

The Feskos have 200 milking cows, and in 1967 made the switch from harvesting a lot of hay to practically all silage (both hay-crop and corn). They finished harvesting 250 acres of hay-crop silage on July 9 last year, and celebrated with a three-week vacation on a trip to Europe! George reports that the flexibilities in harvesting and handling silage over hay are considerable . . . and no desire to return to the bales. — *GLC*

DAIRYMAN

We bought this farm four years ago when Tarbell Guernsey Farm was sold. My stepmother and partner, A. K. Wightman, managed Tarbell Farm, and I and Fred Carpenter, who works for me, were associated with the farm.

This farm has a herd of purebred Guernseys (75 total) with 47 milking. This isn't exactly a two-man farm as I sell a little real estate and do some auctioneering, mostly of antiques.

Partly because we bought the farm with no equipment, we are growing no corn, but fill an airtight silo with haylage and oatlage.

Hay is a mixture of alfalfa and bromegrass, some of which has been down for 15 years. When a meadow needs reseeding, we plow in the spring and seed with oats, which are cut green and put in the silo.

We raise most of our heifers. —*Otis Wightman, Greene, N.Y.*



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Across Line Fences

by Hugh Cosline

THERE'S AN old country saying that good fences make good neighbors! Certainly line fences were the basis for many bitter disputes in the past and still are. But there is a suspicion somewhat prevalent that many disputes in olden times were a form of recreation to be enjoyed, rather than a dispute to be settled by reason and brotherly love.

Today three situations complicate the problem . . . families who live on farms but who do little farming; the absence of boundary markers on many farms; and the failure of state legislation to bring fence laws up to date.

Laws regarding line fences are similar in northeastern states, but my comments apply specifically to New York State. Most of these laws were put on the books many decades ago and have not been updated to fit today's conditions.

One frequent question from readers has been, "Is an electric fence legal as a line fence?"

The answer to that one is that I have been unable to find the slightest reference to electric fences in the law. If I'm wrong, let's hear about it!

The fact is that it's perfectly legal for two neighbors to agree on just about anything in the way of a fence . . . or no fence at all.

But obviously the city family with a yen for enjoying nature on a farm may not have the slightest interest in maintaining a line fence at all. If, however, they have a garden which they find badly damaged by the neighbor's cows, their interest in fencing grows with amazing speed!

What about the responsibilities of a man who has no cows, but whose neighbor does have a herd? The fact that one man has no cows does not relieve him (in most states) of the obligation to build and maintain his portion of the line fence if his neighbor requests it.

What if he refuses? The New York State law says a farmer can appeal to his fence viewers (the town assessors) and if the neighbor steadfastly refuses, they can instruct the herd owner to build or repair the fence, "the cost of which is legally collectible from the neighbor." That sounds good . . . but it's far from being airtight. If the cow-less neighbor won't pay, you can sue . . . but the fence viewers have no responsibility for collecting.

Legal Fence

What kind of a fence is legal? The common understanding (which I believe has some legal status) is: "A fence that will hold cattle." I once knew an experienced sheep man who told me that he never expected an adjoining landowner to build a fence that would hold his sheep . . . the sheep raiser felt that this was his responsibility. Obviously, a neighbor cannot be expected to fence out hogs or chickens.

The law reads that a division line fence is not legally required to be built any particular height or size, or of any particular material or style . . . but be "proper and suitable for all the purposes of such fence." Wire . . . barbed or otherwise . . . may be legally used in construction of any division fence, provided that it is of at least 4 strands with posts no farther apart than 14 feet. Furthermore, the law doesn't say each adjoining landowner should build **half** the line fence, but that each should make and maintain "a just and equitable portion."

Suppose a city family buys a small lot, even an acre or two, along the road. I doubt that he should (or would) expect the farm owner to build part of a line fence. If the owner of the lot wants a fence, he will want the same kind of a fence around the entire lot, one presumably that will keep cows

(Continued on page 23)



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"This is the best use for electricity on the farm."

American Agriculturist, March, 1968

out of the flowers and vegetables.

One of the thorny problems is payment for damages caused by stray cattle. In all cases if you suffer damage and the cows get through your portion of the line fence, you're just out of luck. But if they came through your neighbor's portion, you have a claim.

Here's one situation: You have a purebred herd; your neighbor has grades. His grade bull gets through his half of the fence and breeds one of your purebred cows. He is liable under New York State law for the loss sustained by you.

Exasperating Problem

One of the most exasperating problems is the good-natured neighbor who apologizes profusely when his cows eat your corn or vegetables, and promises to fix the fence immediately. He keeps his promise . . . but the repair job is so inadequate that it's an invitation to any ingenious cow!

Such trespass and repair . . . repeated several times a summer . . . is enough to turn a man's hair gray! It has been suggested that a man so harassed is justified in shutting up the neighbor's cows and keeping them until paid for the damage. Frankly, I don't know how legal such action is, but it does put the burden of action on the neighbor. There's something to the old saying, "Possession is nine-tenths of the law."

I have one friend whose garden was damaged periodically by neighbors' cows. Unwilling to go to court, he bought an electric fence to guard the vegetables. But, would you believe it, when the neighbor discovered it, he was highly insulted! He considered it as a slur on his good intentions!

Another Solution

A similar problem was solved by a man whose garden was constantly being invaded by a neighbor's hens. He put several attractive nests near the fence. I'm not sure that he actually collected any eggs, but when his neighbor saw the nests he decided to keep the hens shut up!

One question that is asked concerns moving a line fence if a recent survey shows it was inaccurately located in the first place. In many states, 20 years of peaceable possession constitutes ownership (15 in New York) regardless of what any legal documents say about where the line should have been.

I can say sincerely that there is no simple solution to many line fence problems. Certainly, legal action should be considered only as a last resort. Actually, there is no problem that should defy solution between men of goodwill who are willing to reason together, to see the other man's point of view, and who will take prompt action to correct sources of irritation.

"You'll be telling me next that your family is so old that your ancestors were in the Ark with Noah."

"Certainly not. My family had their own boat!"



Fish Management – Conservationists at Cornell University recently reported that Sears, Roebuck & Company are carrying in some of their stores a complete line of water weed control chemicals and fish toxicants for renovating ponds. Also available for stocking are rainbow trout, largemouth bass, bluegills, channel catfish, and fathead minnows. The fish are shipped to the nearest airport serviced by R.E.A. Express, and the purchaser advised the day before shipment when to expect them.

❖❖❖

Herbicide – The weed killer fenuron, used in pelleted form, is effective in establishing young plantings of Japanese larch in forest areas previously dominated by undesirable hardwoods, reports Robert D. Shipman, associate professor of forestry at Penn State.

Dr. Shipman said he and his associates have found the best method of applying fenuron is in grids or blocks 6 by 6 feet square. The pellets are applied to the soil surface at each of the four corners of the grid.

❖❖❖

Weed Tree Control – A newly-developed punch hammer system designed specifically for low-cost, rapid injection of unwanted trees with modern silvicides, is now commercially available. The device was developed by Professor William MacConnel of the Department of Forestry and Wildlife Management at the University of Massachusetts. It has been field-tested on a variety of hardwoods and conifers with excellent results. Additional information can be had from the TSI Company, 205 Main Street, Matawan, New Jersey 07747

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Doc Mettler Comments

YOU CAN'T HURRY NATURE!

The author is a practicing veterinarian at Copake Falls, New York

THERE isn't much maple syrup made in this part of the country, but one sees a few stray buckets on maples along the highway where some youngsters are collecting a small amount of sap to boil down on the kitchen range. They will probably end up with a very small amount of syrup . . . which will mean a great deal more to them than the mess made of the kitchen walls and windows by the steam. The hardest part of the whole operation, I suppose, is the waiting for the sap to boil down enough to be syrup, and then to be sticky enough to make "sugar on snow."

It seems that way about everything on a farm. We can't wait to see the first peas come up through the cold ground in the spring, or for the ears to get ripe on the first corn in the garden in midsummer. Later on, the speed with which these things happen when the time is ripe amazes us . . . but it all amounts to the fact that you can't hurry nature. Everything must be right for something to happen, whether it is the blooming of forsythia or the birth of a calf.

Normal Procedure

One of the hardest things to explain to the owner is why on some calving cases you just can't help the cow deliver because the cervix isn't dilated. Farmers are so used to the veterinarian's admonition that "you should have called me sooner," that when he says, "let's wait for a few hours," they think he is up to no good. Most of you know the normal sequence of things that happen when a calf is born. You know that once the water bag appears, if everything is normal the calf will be born in one or two hours.

Let's renew a little anatomy. The outer external opening of the cow's genital tract, that which is seen below the anus, is the vulva. This will usually swell to two or three times its normal size a few hours or days before calving. The canal connecting the vulva to the sack which holds the calf is the vagina. The vagina leads to the uterus, which in the cow is bicornual (that is, it has two horns or sacks connecting to one opening).

At the tip of each horn of the uterus is an ovary, or female sex gland, which produces the egg. The egg has passed down the oviduct, a tiny crooked tube between the uterus and the ovary. The mouth of the uterus, where it empties into the vagina, is called the cervix. In the non-pregnant uterus this cervix is about as big around as a roll of quarters and three inches long. In a virgin heifer it may be two inches long and as small around as a fountain pen. This cervix has three "rings" in its long narrow opening which apparently act as baffles to keep out things that don't belong in the uterus.

At the time of heat this cervix opens enough to admit, with some maneuvering, the breeding rod. In natural service the male sperm pass through the cervix but the bull's penis does not ordinarily enter it. A few days after heat the cervix closes down tight, and if the cow has conceived a "plug" of mucous fills it and stays there until the calf is ready to be born.

About two to twelve hours before the birth of the calf you may see this very sticky gray or brownish plug pass from the cow. The next thing that happens as the cervix opens is that the water bag passes through it, down through the vagina, out of the vulva, and breaks. By this time the cervix is so open that it is difficult to even identify it. Within minutes after delivery of the calf the cervix starts to contract, acting like the pursestring neck of a coin bag, keeping the uterus from turning inside out (casting the whethers, or prolapsed uterus).

Not So Normal

The above is all **normal** procedure. For some reason unknown to most of us the cow's "countdown" is thrown off somewhere once in a while, and everything is ready for the calf to be born but the cervix just won't open all the way. The plug is gone, the water bag has broken; sometimes even, afterbirth will hang from the cow's vulva as though she had already calved, but the cervix is open only far enough for the calf's feet to come through. A person's attempt to assist delivery, or a cow's own straining, only causes the calf's head to go off to one side and serious trouble develops.

Milk fever prior to calving will prevent dilation of the cervix.

(Continued on next page)

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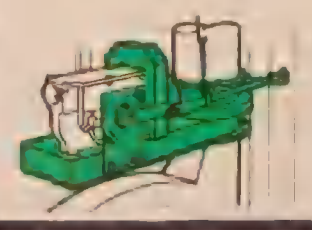
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However, within two hours after administration of calcium most such cows will have calved. Sometimes injury or disease causes the plug to come out, the water bag pushes out and breaks, but the cervix is not ready and won't open until it is ready. Waiting may mean a dead calf, but pulling before the cervix is open will mean a dead or worthless cow from a split cervix, and often a dead calf, too. A Caesarian is probably the safest way to be sure of saving the calf, but this is not the practical way unless the calf is worth as much or more than the dam.

Usually the best answer is to wait and watch. Several years ago I was called on a Saturday morning because a cow had started to pass afterbirth and had not calved. Everything seemed normal except the cervix was open only about enough to get two feet through. The cow had a history of milk fever in past years, so calcium was administered and the cow put in a boxstall. A check four hours later showed no change. Two more checks four hours apart showed no change. The calf was still alive, and the cow ate and acted normal. Antibiotics were administered to forestall infection, and the cow left for the night. The owner checked every couple of hours, however, to see if anything was happening.

Sunday was a repeat of Saturday. By Sunday evening I was beginning to wonder whether we should continue to wait, but the owner didn't want to have a Caesarian done, and was willing to wait as long as the cow was eating. Monday was the first day of deer season, and I promised the owner I'd stop in early, and if nothing happened would return after a few hours hunting to reconsider a Caesarian. At 4:45 a.m. I snapped on the barn lights just in time to see the cow get to her feet and start to lick a live, healthy calf.

Waiting Is Hard

All of my undilated cervix cases have not turned out so well. Often the owner's impatience, and my own doubts, get the best of me, and I attempt to pull the calf. I always think, "Well, I'll work the head through with an eye hook and stretch the cervix." However, the cervix of the cow doesn't stretch; it rips . . . and a cow with a ripped cervix seldom breeds again.

In January of this year a cow went forty hours from the time the water bag broke till she began to strain, the cervix opened, and a dead calf was delivered with some help. Waiting is the answer, but it is hard on everyone concerned. We have tried calcium, hormones, purges, massage, and even thought of witchcraft, but with cows the only answer short of Caesarian is to wait for the cervix to open.

In the mare and the ewe the cervix is softer and does seem to respond to stretching, though this is not considered the correct thing to do. In the ewe, if the lamb is not delivered immediately when it should be the cervix will contract down again and make delivery almost impossible. I do not believe this happens in the cow, though the fear that it has happened is often the reason that a calf is pulled, ripping the cervix which actually had never opened. Even if you are quite adept at helping cows deliver when a foot is back or a calf is backwards, you are apt to be confused with a nondilated cervix. The best advice is, as always if you wonder what is going on, to wash the cow's rear parts, wash and soap your arm, and examine the cow. If you can help her, do so. But if you are the least bit confused, don't do anything but call your veterinarian. Above all, never pull until you are absolutely sure of what you are doing, and even then recheck a second time. Twice in the last week I have helped cows deliver calves coming front feet first with the head and neck back, while the owner (in each case the owner was experienced and had in the past helped many cows deliver) had been pulling on what he thought were rear legs.

When you do call your veterinarian, you, the cow, and the veterinarian will be better off if there is really nothing serious wrong. Just consider the price of the call as an insurance payment. If your veterinarian examines the cow and tells you to wait, he is doing what his experience tells him is correct. Don't be afraid of a "dry birth." A little soap as a lubricant will make up for the natural fluid that is lost while you wait for things to dilate. Just remember the boiling sap kettle; it does make syrup if you wait long enough.

* * *

The young quiz kid faced his mother and asked: "Didn't you tell me the other day that the stork brought me?"

"Why, yes, Junior," she answered hesitatingly.

"Well, for your information, the stork hasn't got the wing spread to carry an eight-pound load!"



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TRACTOR LIGHTS

by Wes Thomas

TRACTOR lights are normally used for actual nighttime field work only a few hours per year. Thus there's a natural tendency to give little attention to maintenance and service.

Sealed-beam type lights are regularly used on present-day tractors. And in most cases, they can be added to old tractors to update them for nighttime field work.

There are two standard diameters of farm tractor lights . . . 5¾ and 4½-inch. The tractor manufacturers and the lamp manufacturers have standardized on these sizes. However, there are a variety of beam patterns available within each size.

It may be worthwhile to take a good look at the beam pattern produced by the lamps which are presently on your tractor to see if they do the best job of meeting your particular requirements. The pattern provided by the tractor manufacturer may not be the best one for you, or you may have inadvertently replaced burned-out lamps with ones which do not meet your needs.

Tractor lamps are identified by two different numbering systems. To identify identical replacement lamps for purchase from the manufacturer's dealer, the tractor manufacturer assigns his own part number. However, the four-digit numbers stamped on the back of the lamp are standard numbers used by the lamp manufacturer. The lamp manufacturer's number identified the lamp by size and beam pattern. These are standard numbers which apply regardless of the particular manufacturer of the lamp.

Opposition

Beam width and distance tend to work in opposition. That is, a wide beam illuminates the area for a shorter distance. The beam patterns shown in the illustration are based on one lamp on each side of the tractor. In some cases, the tractor manufacturer uses two lamps on either side to meet the requirements for long distance illumination ahead of the tractor and broad illumination around the tractor for observation of the implement.

Illumination to the rear is also important with hitch-mounted or pull-type implements. But when the tractor is operated on a highway at night, a red warning lamp should replace the rear illumination.

Combination flood and tail lights are available to meet this dual requirement; the sealed-beam lamp has a red-coated reflector. The lamp furnishes the normal rear floodlight illumination, while a small bulb in the housing behind the sealed-beam lamp is turned on to form the red tail light.

The most obvious check is that of turning on the lights and making sure that they are all working. In addition, check the wiring . . . especially at points where it may be subject to damage. Apply insulating tape at any places where the insulation is frayed, deteriorated, or cracked.

If mounted equipment is installed periodically on the tractor, check that the equipment itself does not obstruct the light beams. It may be necessary to move the lamps to some other part of the implement or machine after it is installed to get good nighttime illumination.

If your tractor is equipped with lamps in the fenders . . . and these fenders must be removed for installation of mounted equipment . . . special attention is necessary. Check to see if there is already a quick-disconnect connector in the wire near the point where the fender is detached from the tractor. If not, you can easily add such a connector to permit easy hookup and removal.

You may wish to mount the lamps on another part of the tractor or machine if the fenders are to remain off the tractor for any length of time. Alternatively, if the lamps are left on the fenders, be sure that the fenders are stored so that the lamps will not be damaged.

Tractor lights are an important safety item if you operate your tractor on the highway after dark, or even at dusk. The regular headlights normally provide adequate illumination to the front. The critical area is the illumination to the rear.

If not obscured by a mounted implement or equipment towed behind the tractor, the combination flood light-rear tail light is usually adequate.

It's a good idea to check the laws of your state in regard to the requirement of flashing red lights on slow-moving vehicles. In some cases these flashing lights are required, in other cases they are specifically prohibited.

An extension mast with a red warning light at its outer end is available as optional equipment on some makes of tractors. The mast is arranged so that it can be positioned vertically in order to be visible above a towed machine, or it can be arranged horizontally and thereby be visible at the side of the machine.

A removable plug-in tail light is another possibility for machines towed behind the tractor. The light is arranged so that simple brackets can be attached to each machine or wagon likely to be towed on the highway after dark. The lamp itself can then be attached or removed from these brackets without the use of tools. The flexible cord on the lamp includes a connector which plugs into a socket on the rear of the tractor.



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The Question Box

... Send us your questions – we'll get the answers

What are your views on the insulated free-stall barn as opposed to the free-stall pole barn without insulation?

To date I have not found any justification for the additional expense for insulated and ventilated loose housing barns. These include those barns where the animals are free to move from a resting area, usually containing free stalls, to a feeding area for hay and/or silage. With greater space provided per animal, the building would need to be insulated better than conventional stall barns in order to provide the same interior temperatures. The initial cost of insulation and ventilation is approximately $35 to $50 per animal.

Benefits, however, are difficult to find. Animals will probably eat slightly less forage in a system that is just above freezing. However, their appetite and body weight may be higher in a colder system. Milk production, according to tests at the University of Saskatchewan, begins to decrease at 25 degrees F. and may be down 4 percent at 0 degrees F. The number of 0 degrees days, however, is quite low in both New York and Pennsylvania.

Preventing condensation is more critical in a cold loose housing system than in an insulated and ventilated barn. In the cold system, the interior surfaces need to be kept quite close to outside temperatures in order for condensation not to occur. Inside air temperatures within 10 degrees of the outside air temperature have been satisfactory in preventing condensation.

This means that the barn is nothing more than a shelter, and there must be a natural exchange of air. Continuous ridge ventilators as well as ventilators along the eaves help to insure this continuous exchange of air. These are much more satisfactory than opening and closing doors and operating fans. — **W. W. Irish, Agricultural Engineering, Cornell University.**

I have a driveway turn-around area with a crusher-run rock base covered with No. 1 stone. This small stone is picked up by wheels and feet and carried inside. Would a mixture of sand and cement sprinkled over this stabilize it?

I'm surprised, if the material is No. 1 size aggregate, that it is picking up to any troublesome extent. This size is generally graded between 1/4 and 1/2 inch. Perhaps you're on the low end of this scale . . . or perhaps you may have the No. 1A size aggregate which is graded between 1/4 and 1/8 inch.

If it were my turn-around area, I'd avoid the use of a mixture of sand and cement sprinkled over the loose aggregate. This would amount to using a cracker-thin and cracker-brittle substance over a flexible-type pavement structure in which some yielding is to be expected. I won't say it won't work, but I fear that you might be disappointed with the cracking.

One way to get around your problem is to remove the one-size cover aggregate that is troubling you. If you want to leave it there, you might line up a responsible contractor with a bituminous distributor to apply a light shot of asphalt emulsion or rapid-curing cutback to penetrate this loose float and help to anchor it.

Stability of this coated float would be improved by chinking with a one-size but smaller stone (if yours are No. 1's chink with 1 A's). If using chink stone, you'd need to be sure not to use any more than would fill the surface voids and be anchored to the bituminous material . . . or you'd be right back where you started.

Liquid bituminous materials cost, in round numbers, about 25 cents per gallon. I don't know the depth of your float but if it's thin, you'd probably use in the range from 1/3 to 1/2 gallon per square yard. — *Prof. J. W. Spencer, Cornell University*

Are wood ashes good for putting on garden soils?

Wood ashes are of value in counteracting soil acidity. When unleached, 100 pounds of wood ashes are equivalent to 50 pounds of ground limestone or 25 pounds of burned lime. They also contain certain plant food elements other than calcium and magnesium, and may be of considerable value as a fertilizer.

The potash content is particularly high, and, where this element is deficient in the soil, wood ashes may prove a good fertilizer as well as an effective liming material. The beneficial effect of wood ashes is often due largely to the phosphoric acid which they contain.

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ROADSIDE MARKETS

by Amos Kirby

ROADSIDE MARKETS have become big business in New Jersey, and growing bigger. In a report just published by the College of Agriculture, compiled by Morris Fabian, assistant Extension specialist in marketing, it is reported that roadside markets are located in 20 of the 21 counties. There are 877 markets in the State, 577 of which are described as permanent and doing business throughout all or most of the year. Monmouth County leads with 100 markets, followed by Burlington with 97, Morris with 58, Gloucester, 63, and Hunterdon with 12.

How much did these markets sell in a year? No actual totals are available in the Fabian Report, but it does state that 433 of these markets sold less than $1000 each, and 373 had sales above $25,000 each.

The roadside market business embraces those that sell only those products produced on the farm and those who add other products to balance out the demand of customers. Out of the 877 markets included in the survey, 215 sell only their own products. 449 combine homegrown with purchased supplies, and 213 grow none of the products they sell.

The variety of products sold might easily be compared with a modern supermarket. Tomatoes were the number 1 item, with sales in every county. Sweet corn takes second place, followed by peaches, apples, strawberries, potatoes, snap beans, other vegetables, cantaloupes and melons, flower and nursery products. Other products sold include eggs, chicken, turkey, squash, pumpkins, rhubarb, pears, grapes, plums, raspberries, blackberries, cider, honey, jellies, jams, etc.

The New Jersey Certified Markets (numbering 41) are located in all but five counties, with the greatest concentration . . . eleven markets . . . in Bergen County, followed by five in Monmouth County. Roadside marketing is here to say, and it is providing a market for a dollar volume that runs into the millions.

PRUNING PEACHES

The hottest subject between peach growers and the College of Agriculture is "When is the proper time to prune peach trees?"

In recent years growers have started to prune in September when they wish to hold their workers until the end of the apple harvest. With the introduction of the tree trimmer, which mows off the tops of the trees, hundreds of acres have been pruned in November and December. Growers prone when labor is available.

"All wrong!" declares Ernest Christ, fruit specialist at the Agricultural College, who has visited more peach orchards in New Jersey and other states than any other one person. Mr. Christ advocates waiting until spring for pruning. He claims fall pruning involves a risk of canker and other diseases. Also, fall pruning may remove buds that will be needed to produce a crop if the orchard is hit by late freeze. Many growers had no peaches in 1967 as a result of a late spring freeze.

Growers claim they must prune when they have help available; Ernest claims prune late if one wishes a crop the following season, based on unpruned trees that had a fair crop in 1967 against early-pruned trees that had little or no fruit.

FINDINGS

The University of Delaware finds that irrigation has no benefit on asparagus. This report is based on a six year test that included the five-year drought that hit the industry in that state and New Jersey.

Asparagus goes deep in the soil for its moisture; roots have penetrated to a depth of six feet. It was found that when there were ample showers during July and August, there was an increase in the number of marketable spears the following year.

Growers who have been spacing plants at 12 to 15 inches in the row have been losing potential yields. In the Delaware tests plants spaced six inches produced the largest yields during the first five seasons. In the sixth year yields from the 12-inch spacing equalled that from the six-inch spaces. Yields from 18-inch spacings never caught up with the closer-set plants; the only advantage of the 18-inch spacing was that the spears were larger.

HIGH-DENSITY ORCHARDS

New Jersey apple and peach growers are taking a hard look at high-density plantings. Some peach growers are planting 10 to 12 feet apart in the row, and like what they are harvesting . . . more peaches per acre.

Dr. D. V. Fisher, Summerland, British Columbia, told growers at the New Jersey Horticultural Society meeting that the apple and peach orchards of tomorrow will be what he calls "wall plantings" . . . peach trees 8 to 10 feet apart in the row and 13 feet between rows. British Columbia growers in ten years have increased yields five times with high-density plantings of apples. Top yield was 4000 bushels of apples in a plot planted 6½ feet apart in the row and 14 feet between rows.

IT'S NEW

It's the newest but not the largest in the United States. The New Jersey Crop Improvement Association has opened a new seed processing plant at Allentown for producers of Midstate certified seed. The new facility consists of 25 circular galvanized steel tanks or silos holding approximately 1300 bushels of seed.

From the storage tanks the seeds are debearded, cleaned, sized, treated, and bagged. The seed is then ready for distribution to the trade throughout New Jersey and adjoining states. The cooperative manager is Hilyard Simpkins, who directs the management and distribution of the certified seed.

DAIRY YARDSTICK

Want to make a profit in dairying in 1968? Here is the yardstick recommended by Louis Longo, president of the Connecticut Milk Producers' Association, in an address before a breeders' dinner meeting. The five units in the Longo yardstick are: a milking parlor, a free stall barn, bunker silos, the roughage program to feature 100 percent use of corn silage, and the herd to be composed of registered cattle. The Longo yardstick is based on his 160-head unit, with a production of a million pounds of milk for each man employed. A factor in making a profit has been his use of the bunker silo, where the investment is less than $1 per ton compared with maybe $4 per ton in the standard silo.

CLOSE THE DOOR!

That admonition is not being yelled at the children on their way out; it is directed to those who leave the barn door open. Everyone agrees that cows need fresh air, but not by the "open door" method during the late winter and spring months. While fresh air is important, cold blasts can trigger a case of mastitis.

MOLDY GRAIN

A warning comes from the dairy division of the College of Agriculture that moldy grain has been the cause of digestive disturbances in dairy cattle. Last fall there was more than the usual amount of soft corn. If fed immediately, there is nothing wrong with soft corn, but when left around for a few days or weeks molds thrive on it . . . and that leads to troubles in the digestive tracts of the dairy cows.

Few know the differences between the molds. They are like native mushrooms . . . some are safe to eat and others are poisonous. The same goes for the use of ground soft corn that has been held too long in storage.

The safe rule appears to be up to one week. If held for longer periods, it is suggested that mold inhibitors be added. They include compounds such as ascorbic acid, calcium propionate and sodium propionate, and may be added at the rate of 6 to 10 pounds per ton.

IT LOOKS GOOD

That new white potato variety named "Lenape" looks good to New Jersey growers. In trials at the College of Agriculture, Lenape yielded 435 hundredpound sacks of U.S. No. 1 potatoes. Adding those that did not make the No. 1 grade, the total was 468 cwt. per acre. In the same test all other varieties produced only 200 sacks per acre.

Lenape ranks high in quality. In fact, according to tests compiled by the Food Science Department at the College, it ranks high as a baker, for boiling, mashing, chipping, and for French fries. This looks promising for Jersey, where a large percentage of the potato crop is used for chipping and the French fry market. Lenape will not be available for planting this year, reports John C. Campbell, potato specialist. But for 1969 John suggests contacting seed suppliers for delivery next fall or spring.

Leon Farrow changed his combine into forage harvester.

Cajou?

Leon Farrow of Kossuth County, Iowa has been a Uni-System farmer for two years. He uses his Uni-Combine with its 13-foot grain platform for beans and oats. At haying time he changes over to his Uni-Forage Harvester for haylage. Then, in the fall he changes heads and chops 200 to 250 acres of corn. Finally, Farrow changes over to his Uni-Picker for 400 to 450 acres of corn. For all this self-propelled harvesting he uses the same rugged, interchangeable Uni Power Unit.



Uni-Combine available with 11- or 13-foot grain platform, standard hot reel or Universal Pickfleur pick-up reel.





Uni-Forage Harvester has 3 upper feed rolls, six spiral knives and separator blower. New 10-foot direct cut attachment available.



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Uni-Picker uses any Uni 2- or 3- head. Biggest husking bed in the for big capacity, non-stop pic



Uni-System is unlike ordinary self-pro- ers which only combine beans, grain and corn. Uni is a complete harvesting system. Six different combinations for corn, beans, grain and forage crops – all using the same interchangeable Power Unit. See your New Idea dealer soon. Isn't it time you went Uni-System, too?

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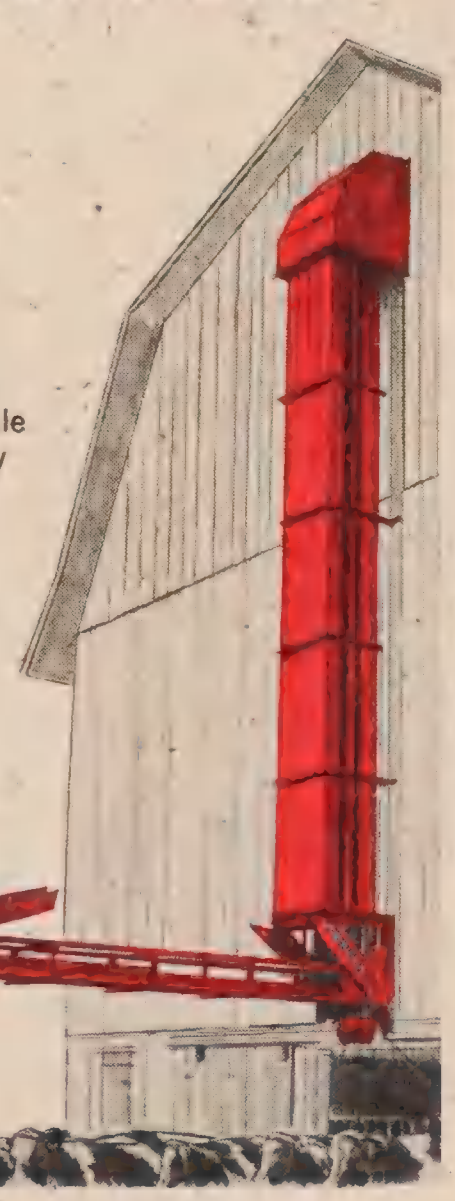
Uni-Combine shells 2-row wide or 3-row wide or narrow row corn; has extra rugged cylinder for corn harvesting.





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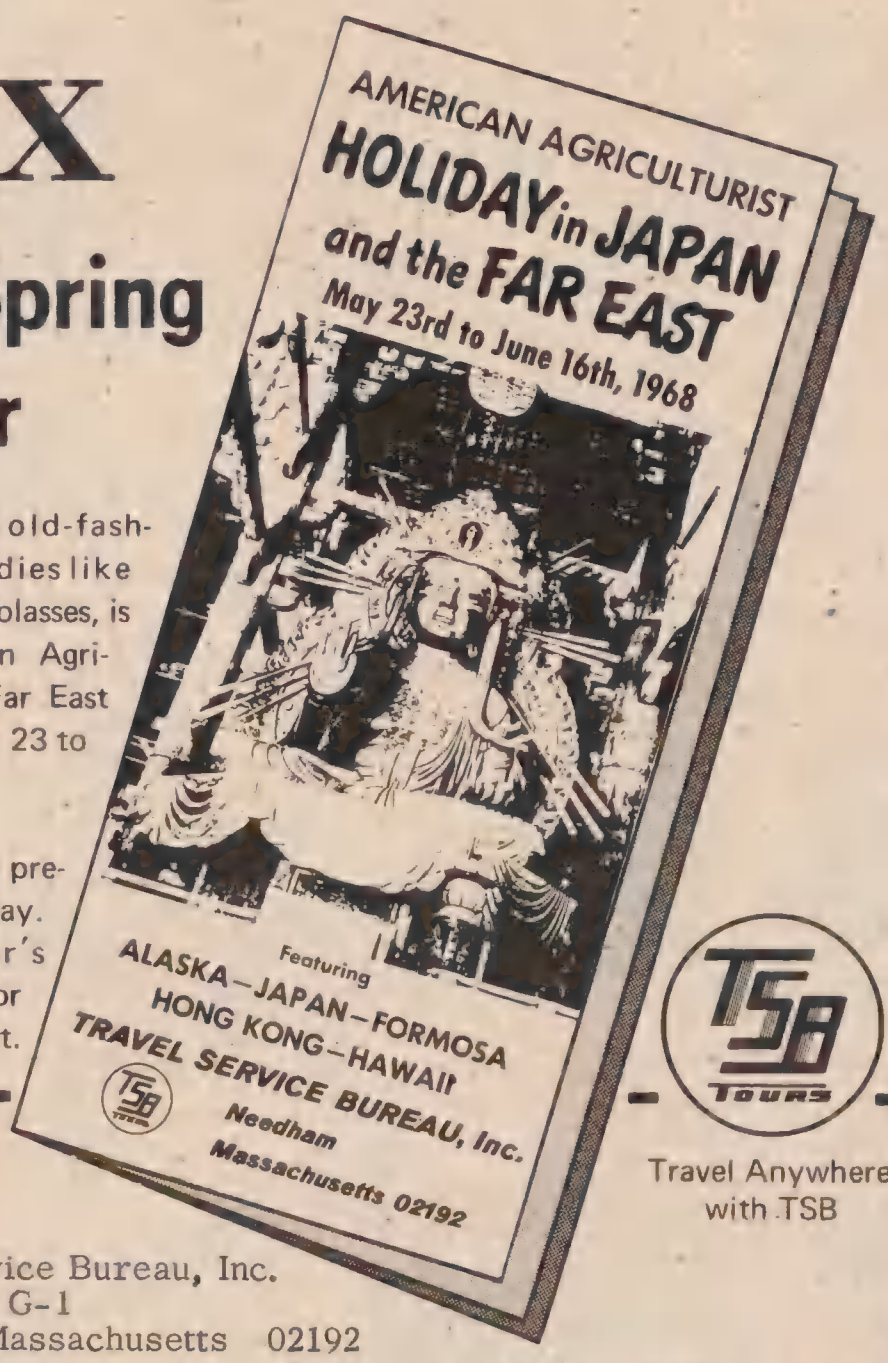
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Dollar Guide

For The Northeast Farmer

WASHINGTON PLANNERS are giving much thought to farming. This is presidential election year; also, farm programs are "costing too much."

Many present farm programs will expire in fall of 1969 unless extended by Congress, and they might not be extended. If this happens, government would not "get out of agriculture;" controls would revert to earlier legislation. Perhaps biggest effect could be discontinuing present subsidies and direct payments to farmers now totaling about 3½ billion dollars annually.

There is much talk about limiting government help to big farms and tightening law to limit "millionaire playboy farms" from using losses to reduce income taxes.

Congress may put emphasis on permitting better farm income through collective bargaining by farmers. Situation needs watching, because whatever government does will affect your farm income. Long-time outlook is for more rather than less government control of farming.

ALFALFA WEEVIL poses serious threat to practically all northeastern acreage of the "queen of forages" in '68, say entomologists. One approach ... greater intensity of cropping so can concentrate alfalfa in smaller acreage and thus spray fewer acres with insecticide.

YORKSTAR, new soft white winter wheat developed at Cornell University, is sometimes referred to as "the million dollar wheat" ... increased yield should put that many extra dollars in pockets of New York State wheat growers annually. Plant breeders say there will be enough seed to plant one-third to one-half of New York's acreage in the fall of '68.

HOLSTEIN STEERS sell in a strong market for about one cent per pound less than comparable beef-type steers ... about four cents less in a weak market situation.

PRE-EMERGENCE SPRAYS for annual weeds in corn are preferred to post-emergence sprays under most conditions, say Wisconsin agronomists. Main advantages of pre-emergence treatment: good insurance against weeds in case of wet weather after corn comes up, and insurance against herbicide applications delays because of the pressure of other farm jobs at cultivation time.

FERTILIZER remains one of the best buys available to farmers. Price has gone up little over the years ... remained remarkably stable in price compared to other things farmers buy. Recent construction of nitrogen-producing facilities and development of huge potash supplies in Canada have helped keep plant nutrient costs down.

Remember, though, that fertilizer is practically thrown away if your soils are low in pH. Lime to bring pH to the 6.5 to 7.0 range ... then fertilizer can deliver its nutrients to the plants instead of having plant food locked up by the soil.

TAX BREAK is available to self-employed farmers who set aside funds from their 1968 income for a retirement fund. Funds set aside are deducted from '68 taxable income, and income from these invested funds is tax-free until distribution. Ask your tax counselor or attorney about the Keogh Act and amendments to it that became effective on January 1, 1968.

CORN GROWERS GUIDE is name of 144-page manual published by P-A-G Division of W. R. Grace & Co. Six sections on planting, harvesting, fertilizer, diseases, weeds, insects. Cost is $2.95, with a 10-day trial period before paying. Order from Corn Growers Guide, Department M, 1999 Shepard Road, St. Paul, Minnesota 55116.

IMPORTANT FACTOR in profit from all poultry production is increase in feed efficiency. In 1940 it averaged to take 7.3 lbs. of feed to produce a dozen eggs; in 1966 figures had dropped to 6.6.

How to Increase Milk Returns more than $100 per Heifer!



Growth Difference in Identical Twin Heifers Shows How Wayne Feeding Leads the Way to More Total Milk

These identical twin heifers being raised at the Wayne Research Center are proving once again the extra profit benefits of the Wayne Calf-Heifer program . . . that the faster growth produced by Wayne means earlier breeding, earlier calving, earlier milk production and more total milk. In fact, 5,000 to 6,000 lbs. more milk worth $100 extra net profit to you.

Miss Wayne, (on the right) raised on the Wayne Program, was 140 lbs. heavier at the time this photo was taken and is expected to calve 4 months earlier than her twin, Miss Average, who is being raised on what is considered a good average program. Both will calve at the same weight and the total cost of raising the twins to calving age will be about the same. But Miss Wayne, because of her faster growth, will produce milk four extra months and return greater net profit during her life in the milking line.

Dairymen all over the country are realizing the extra net profit available to them in their heifer barns and are following the Wayne Program. Look at the number of heifers that enter your milking line each year and multiply by the extra profit each could produce. Then call your Wayne Dealer and get your replacement stock started on the Wayne Calf-Heifer program.

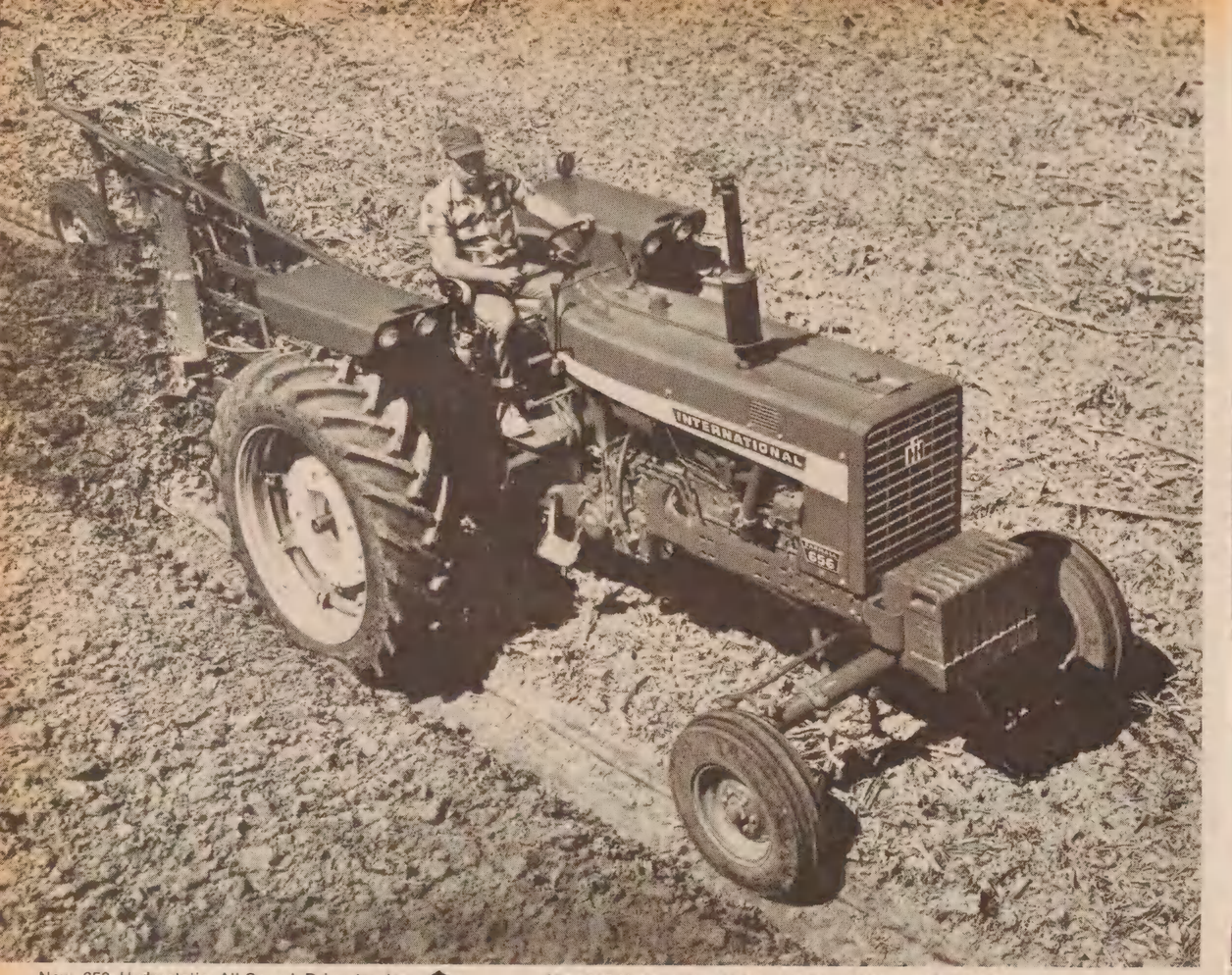
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375 Hydrostatic Drive windrower.

Cub Cadet Hydrostatic Drive lawn and garden tractor. Available in 10- and 12-hp models.



Farming will never be the same

Why many call us the hydrostatic people

Because no one gives you such a variety of Hydrostatic Drive equipment as International. Here is concrete evidence that International intends to *remain first* to serve the farmer.

But what is in Hydrostatic Drive for you?

One lever gives you infinitely variable speed control—and instant forward-reverse—on the go. No shift pause or lurching. No need to touch the throttle. Never a break in power.

You set the *exact* ground speed you want—and adjust your speed instantly to match varying ground and crop conditions. And no matter how much or how often you change ground speed—you always have full engine power and full hydraulic power.

Farming will never be the same. See for yourself. Get in touch with your dealer—and test-drive the International Hydrostatic Drive machine that can make the biggest productive difference on your place.

First to serve the farmer

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PREVENTS BLOAT

RECENTLY introduced by the Animal Health Division of Smith Kline & French Laboratories, "Bloat Guard" Medicated Premix is made to be mixed in cattle supplements, concentrates, or complete feeds in the form of cubes, pellets, crumbles, or meal by any feed manufacturer whose new drug application is approved by the Food and Drug Administration.

This bloat preventative originally was introduced in 1966 as a top dressing for feeds, and later in molasses-salt blocks. The product was developed by the company in cooperation with Kansas State University.

Scientific research on bloat has been long and slow, but no one came up with the answers until Dr. Erle E. Bartley took on legume bloat as a sort of personal challenge about ten years ago at Kansas State. He searched thousands of chemicals and compounds, using sets of identical twin cattle with fistulas, or windows, surgically inserted in their rumens.

Legume bloat is caused by frothing or foaming action in the rumen, where millions of tiny bubbles of digestive gases are trapped so a cow can't belch as she would normally. The problem narrowed down to one of preventing foam formation . . . stop the foam, and you'd stop the bloat.

No available antifoaming compound would meet all the requirements set up by Dr. Bartley. So, assisted by scientists of Smith Kline & French Laboratories, he found a new one specifically to prevent bloat. Technically, the compound is a block polymer with the tongue-twisting name of polyoxyethylene-polyoxypropylene . . . dubbed **poloxalene**. It's now available in three forms . . . as a feed top dressing, molasses/salt block, or feed premix.

Persons who would like more information about the product, or who desire assistance in filing the required application to mix "Bloat Guard" Medicated Premix in feeds, may write to John B. Conway, Animal Health Division, Smith Kline & French Laboratories, 1500 Spring Garden Street, Philadelphia, Pennsylvania, 19101

This 100% systemic insecticide builds in long-lasting bean insect control

Experience with Thimet® on 350 acres of spring and fall beans has proven to Joe E. Bernard, manager of the Carlton Byrd Farms, Parksley, Va., that this soil insecticide provides long-lasting systemic protection against a multitude of insects. / "Before we used Thimet, we had to maintain a strict 7-day spray schedule or we wouldn't have gotten a crop at all. Thimet has certainly taken a lot of pressure off." / Other bean growers throughout the country get continuous control of beetles, mites, lygus bugs, aphids, thrips and leafhoppers. There is no effect on flavor. No residue in the harvested crop. No danger to beneficial insects. No soil compaction from repeated use of spraying and dusting equipment. No drift, wash or blow-off. Thimet moves up from the soil to protect the entire plant from the inside! And by eliminating disease-carrying insects, Thimet also helps stop bean mosaic and curly top. / Handy 10-lb. bags make it easy to use recommended rates of Thimet with a granular applicator in the row at planting time. Order Thimet from your dealer today! / Before using any pesticide, stop and read the label.

CYANAMID

AMERICAN CYANAMID COMPANY
PRINCETON, NEW JERSEY



COW FEED NEWS

When mixed with molasses, ground-up newspapers make a nutritious feed for cattle, according to Earl M. Kesler and associates at The Pennsylvania State University.

Heifers fed on a newspaper-molasses mixture gained weight and appeared as healthy as another group of "control" heifers eating a standard high-quality feed supplement. The experimental heifers gained about 1.7 pounds a day compared to 2.5 pounds a day for the control heifers. The newspaper-molasses supplement of 32 percent ground paper, 48 percent molasses, and 20 percent soybean meal was fed along with conventional corn silage.

Throughout the 56-day trial, the test heifers ate about two-and-one-half pounds of newsprint daily. They seemed to digest the newspaper-molasses ration as well as their sisters digested the more traditional feed made up of 75 percent ground shelled corn and 25 percent soybean meal . . . fed in addition to corn silage.

Waste paper was ground to varying degrees of fineness in a cutting or hammer-type mill. Both newspapers and magazines were satisfactory. Cane molasses was mixed with the paper. The mixture was then dried, with or without heat, depending upon the amount of molasses used.

A SOLID BLOCK

Now that New York State is certified brucellosis-free, this establishes a solid block of seven states in the Northeast which are free from this cattle production hazard . . . New Hampshire, Connecticut, Maine, Massachusetts, Rhode Island, Vermont, and New York.

To keep check, in New York two screening procedures will be maintained; the State's more than one million dairy cows will be milk ring tested four times yearly; and beef cows will continue to be market cattle tested.

NEW NUTSEDGE NOCKER

You probably know this weed as **nutgrass**, but the experts who keep track of such things checked out its pedigree and found that it really belongs to the sedge family instead of the grasses. Seems it's a wolf in sheep's clothing!

And a wolf it is . . . one of the meanest of the mean weeds. Bob Sweet, Cornell University's vegeherbicide specialist, reports that nutsedge has made a 25 percent rise in population in the Northeast over the last five years. It's a real "triple threat," spreading by tubers (the "nuts" from which it gets its name), seeds, and underground vegetative elongation.

Control Methods

Atrazine at 3 pounds per acre on corn, applied early post-emergence when "sedge" is in the spike stage, is effective in control . . . when combined with cultivation. This material at such a rate leaves far too much residue for the health of any crop but corn the following year, though, so vegetable growers have long looked for an alternative.

Bob reports that one alternative that has worked marvelously on sweet corn in experimental plots is a combination of atrazine, a superior oil, and 2,4-D. One mixture that did well (figures on a per-acre basis) was 3 ounces of 2,4-D plus 1 pound of atrazine . . . accompanied by a gallon to two gallons of oil. Application time was 3 to 4 weeks after planting. Rates of atrazine used have ranged all the way down to one-half pound per acre.

Results when it's done exactly right and with precision . . . clobbering of most **annual** grasses, as well as nutsedge, which **isn't** an annual grass! Quackgrass is knocked down, but it regenerates . . . nutsedge stays down. This does not, of course, kill the nutsedge tubers in the soil.

Major problem has been the fact that sometimes the corn is stunted . . . on an erratic basis that baffles researchers. They're trying to find out more about what's happening so they can recommend the combination in cases where corn will not follow the nutsedge control program, and low atrazine residues are a "must."

As of now, though, the combination is not officially recommended.

ROOT DRILLING

University of Wisconsin agronomists recently weighed in at the continuous scrap over the advisability of fall application of fertilizer. Professors W. S. Dancer and L. A. Peterson report that leaching of nitrogen from the plow layer is not as serious a problem as many farmers think.

On a silt loam soil, they found that many crops can send their roots down more than two feet to pick up nitrogen. They concluded that, on some soils at least, plants can go after plant nutrients leached to lower soil levels.

What's New For Farm and Home

Targot — Is the name for American Cyanamid's Mastitis Suspension, reported to be a broad-spectrum product (effective against six of the most common mastitis organisms). Additional ingredient also reduces severity of udder inflammation.

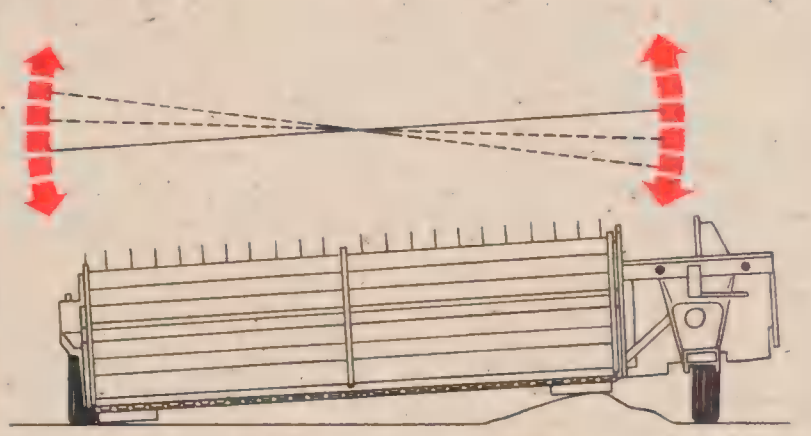
Honeywagon — Badger Northland has introduced a new vacuum spreader tank for handling slurry manure. Manure is pulled into tank by vacuum, then a reversing control lever changes vacuum to pressure for unloading.

Surging Power — Babson Bros. Company is selling a Surge Alternator . . . a pto-operated standby electrical power source to take over in those rare emergencies when high-line goes dead.

Keep 'em Warm — A new frost control method for early spring crop protection is called Tree-Heet, made by the Mobil Oil Corporation, 150 East 42nd Street, New York, N.Y. 10017. Petroleum coke bricks weigh about two pounds each, come in four and six-pound packages.

Looking at pull-type windrowers?

Here are some tips.



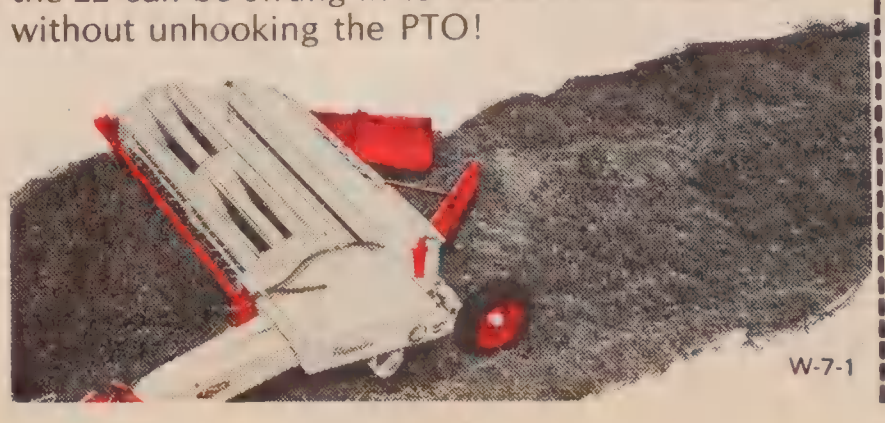
Header flotation makes a big difference in the cutting job you do.

Ordinary header flotation leaves a lot of forage uncut in the field. Lift the header on one and see why. When one side is lifted, the other side comes up too. Then try Owatonna's Haymaster 22. It uses an exclusive suspension system called "Contour Flotation" (patent pending). Each side of the header is supported by its own heavy coil spring. So the header floats along even the roughest ground . . . getting all the crop. No waste with a Haymaster 22. There's no gouging, either. Because the header pivot point is very low on the Haymaster 22, the pull of the tractor actually lifts the header up . . . rather than gouging it into the ground, like other models do. Look at the underside of the Haymaster 22 and see for yourself.

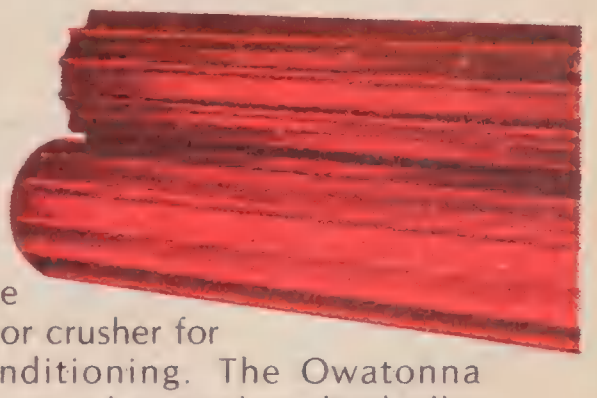


Don't let the hitch limit durability and versatility of the machine.

One look at the Haymaster 22 and you can see the hitch is the most rugged available. Compare it. It's safer, too, because it encloses the PTO drive. When traveling on the road, the hitch on the 22 can be swung in to narrow the width . . . without unhooking the PTO!



W-7-1



Get "use-tailored" features for your specific needs.

Only the Haymaster 22 gives you a choice between crimper or crusher for 100% forage conditioning. The Owatonna crimper uses two synchronized, individually-powered rolls. Crusher has a fluted rubber roll and a bar-type steel roll. And you can select any windrow width — even leave the shields wide open and lay the conditioned forage in a full swath. You'll like the other "use-tailored" features of the 22: 8-bat reel, fast reel speed, heavy construction, *and* a low price tag.

Or step up to a self-propelled...

Owatonna's long line of self-propelled windrowers can meet the requirements of even the biggest operations. The big Imperial 92 has 60-hp., up to 16-ft. cutting capacity with exclusive tapered auger. OMC self-propelled draper models are available with power units ranging from 30 to 60 hp.

See your Owatonna dealer soon, or fill in the coupon.



Haymaster 22

OWATONNA R3

OWATONNA MANUFACTURING COMPANY, INC.
Owatonna, Minnesota 55060

Send information about

☐ Haymaster 22 ☐ OMC Self-propelled models

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GARDEN VENTURING

by Isa M. Liddell

WHAT new varieties of vegetables are you going to try out in your garden in the summer of 1968? For that's half the fun of gardening . . . to have at least a few new "ventures" each year. What matters it whether the varieties are new on the market or just new to you.

The other half of the fun is the pleasure of planting, watching the plants grow to fruition, and harvesting fresh, ripe vegetables. Nothing . . . not anything . . . tastes as good from the store as it does from the garden . . . from sweet corn (which loses some of its sweetness every minute from the time it is picked) to crispy, crunchy carrots drawn from the soil, cleaned off, and munched while you walk around looking at your other crops.

Only One

First on the list of new vegetables usually are the All-American choices. This year, it so happens, the only vegetable added to the list is the cucumber "Spartan Valor." It's an attractive dark green slicing type, about 8 to 9 inches in length and around 2 inches in diameter. It is highly resistant to mosaic and scab, free from color mottling and specking, and a vigorous producer.

The W. Atlee Burpee Company offers two **new** vegetables . . . the "Crenshaw" melon and the "Popsicle" carrot. The melon has a delightful flavor, is thick-fleshed, an early hybrid from which large melons weighing up to 14 pounds apiece can be picked 90 days after planting. It is considered ideal for the home gardener, thriving almost anywhere with a minimum of care, even in northern states.

The "Popsickle" carrot grows well in either heavy or shallow soil. It matures in 68 days after sowing, averaging 3½ to 4 inches in length and 2 inches across at the shoulder. The crisp, brittle and attractive orange flesh has a sweet flavor.

Winners of Other Years

So much for the new offerings. Let's recall some of the All-America selections of former years.

If your family likes peppers, there's "Bell Boy," with thick, meaty walls and large blocky fruits. And for the vegetable . . . or is it a fruit . . . that everyone depends on, try the wilt-resistant hybrid tomato "Spring Giant." Both were 1967 All-America selections.

Still leading their classes in popularity are the bush-type winter squash "Gold Nugget" and lettuce "Butter King," both chosen as 1966 All-America selections. And there are the 1965 winners, such as "Savoy King" cabbage, "Chefini" summer squash, cantaloupe "Samson" . . . and the cucumber "Triumph" will give lots of competition to this year's choice of "Spartan Valor."

Among the many tried-and-true varieties listed by Harris Seeds are the "Moreton" hybrid tomato, an early variety that combines big yields over a long season. "Wonderful" sweet corn is described as a special experience in good eating. And why not try the "Butter and Sugar" corn that mixes white and golden kernels.

A new introduction in 1967 was the Harris "Princess" cucumber. For beans there is "Tendercrop" snap beans, or the white-seeded pole beans "Kentucky Wonders." Zucchini "Elite" is an attractive green summer squash, and if you want color in your salads, grow some "290 Red Acre" cabbage, or the very dark red "Red Danish."

"Slobolt" is a lettuce that doesn't run to seed as quickly as many do. Many folks like the big-podded peas, but I think "Little Marvel" peas are delicious, and they can be used for freezing.

And why not plan for next Halloween with a few "Connecticut Field," or "Big Tom" pumpkins?

The decision is as widespread as the varieties . . . best choice is what your family has liked . . . with a few new ones to broaden their "likings." Just to give you more to think about, let me give you a list suggested by the All-America Selections Committee:

Bush snap bean "Executive;" bush lima "Fordhook 242;" beet "Ruby Queen;" broccoli "Cleopatra;" brussel sprouts "Jade Cross;" cabbage "Emerald Cross."

Then there are carrot "Gold Pak;" the early sweet corn "Iochief;" endive "Batavian Full Heart;" lettuce "Buttercrunch (an all-summer variety); and loose leaf lettuce "Salad Bowl."

Also on the All-America Selections list are mustard "Greenwave;" okra "Clemson Spineless;" sweet Spanish onion "Yellow Valencia;" parsley "Paramount;" the "Freezonian" pea, long a favorite; and radish "Cherry Belle."

Even with small plots, it's amazing how many vegetables can be fitted in, often by successive sowings. For those who are able to "spread out" the list of old and new favorites is almost endless. So, Happy Gardening!

NO LOSSES, PLEASE

Editor's note: *Farmers have similar problems . . . and the ability to laugh at them . . . everywhere in the country. For instance, here's a letter that appeared recently in the "McDuffie Progress," weekly paper at Thomson, Georgia:*

Dear Editor:

I have never been afraid of a new idea. It's the old ones that sometimes bother me, and I'll admit I'm fascinated by a new idea I read about in a copy of a newspaper I found in a ditch by the road near my farm out here yesterday, weighted down by a load of tin cans and bottles which somebody in town apparently had given me, although I wish you'd tell them I'm not in the market.

According to it, the automobile workers are asking for a guaranteed annual wage. They want to know at the start of the year what they'll earn by the end, not by the hour, but by the year.

What I'm wondering is, why didn't us farmers think of that years ago? It's exactly what I've been looking for!

Like it is, we start out on a crop and don't know till it's gathered and sold whether we were working for $2 an hour, $1.25, 35 cents, or just for the fun of it. This puts a great strain on a man, not to mention his banker!

Naturally, the first question that comes to mind is, **who** would guarantee us the annual wage? Naturally, too, the car manufacturers wouldn't be interested, nor would the grocery stores or the housewives or the packing companies or the chamber of commerce or the state legislature.

To be statesmanlike about it, the job obviously falls on Washington, and I will appreciate your influence if you can locate it somewhere around there in your office to get this thing set up by Congress before the end of the year. Look over there behind that stack of papers.

There is one point, though, I want to steer clear of. The auto workers are asking also for a share of the companies' profits. We don't need that provision in our bill. Don't even mention it.

You let somebody suggest we're entitled to a share in Washington's profits and immediately some smart aleck up there would suggest we'd also have to share in the losses. It'd ruin us! —*J.A.*

It's a mow/ditione hat's right.
A New Ide now/ditioner.



New Idea's new Mow/ditioner does just that. It mo conditions and windrows or swaths all kinds of h — alfalfa, grass, clover, or mixed. And it makes sh work of tall crops, such as sorghum and sudan hybri

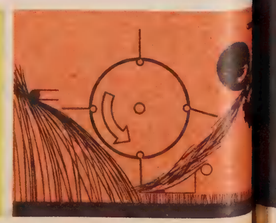
With its full width, plug-free conditioning rolls, the Mow/ditioner conditions the hay, then lays it back in a fluffy, fast-curing windrow or swath. Galvanized windrow shields swing open in seconds for swathing.





Longer distance from hitch pin to axle lets you cut perfectly squ corners each and every time. PTO is positioned over tongue, out the way of the crop, avoiding tendency to wrap.

Sickle cuts plants cleanly and reel tines provide a constant and positive feed of materials into the cutterbar. Material is guided butt first into the conditioning rolls and out into swaths or windrows.



The new Mow/ditioner is designed to take the place of mower, conditioner and rake. In doing so, it reduces field travel as much as two thirds, reduces man hours, reduces soil compaction, reduces operating costs. See it at your New Idea dealer now.

AVCO NEW IDEA FARM EQUIPMENT
Coldwater, Ohio 45828



The versatile Cut/ditioner. One more haymaker from New Idea. Unbeatable in down, rank and tangled crops. Mows, conditions and, with shields, windrows. You get higher quality, softer and more palatable hay than with a conventional mower-and-conditioner combination.

CLASS I BASE PLAN

Here's a schedule of meetings to be held across the Order 2 Milkshed to explain the proposed Class I Base Plan. Except for Walton and Jeffersonville meetings, which begin at 1:00 p.m., the first group listed start at 1:30:

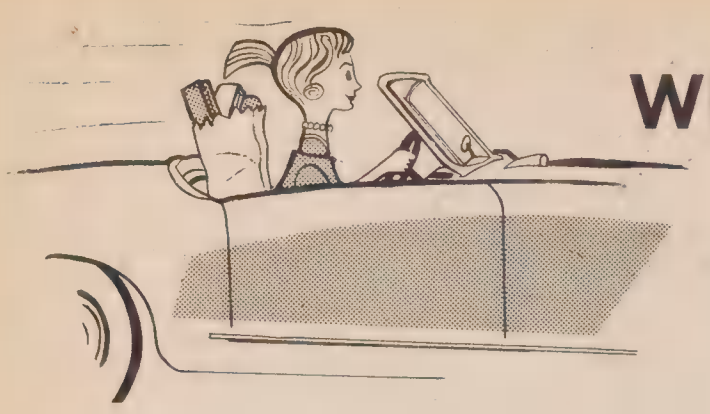
Date	Location
March 5	Calcium, N.Y. (Grange Hall)
	Cortland, N.Y. (Grange Hall)
	Honesdale, Pa. (Grace Episcopal Church Hall)
March 6	Chazy, N.Y. (Miner Institute)
	Oneonta, N.Y. (W. Oneonta Fire Hall)
	Waverly, N.Y. (Masonic Hall)
	Hublersburg, Pa. (Walker Township Fire Hall)
March 12	Auburn, N.Y. (Cayuga Co. F & H Center)
	Bath, N.Y. (Civil Defense Building)
March 13	Fort Plain, N.Y. (VFW Hall)
	Stanton, N.J. (Grange Hall)
	Lancaster, Pa. (F & H Center)

The following meetings will begin at 8:00 p.m. on the dates indicated:

Date	Location
March 5	Canton, N.Y. (Town Hall)
	Binghamton, N.Y. (F & H Center)
	Sherburne, N.Y. (Municipal Building)
	Taunkhannock, Pa. (Grange Hall)
March 6	Chateaugay, N.Y. (Town Hall)
	East Cobleskill, N.Y. (Grange Hall)
	Mansfield, Pa. (Grange Hall)
	Vicksburg, Pa. (Community Building)
March 12	Westmoreland, N.Y. (Grange Hall)
	Middletown, N.Y. (F & H Center)
	Dansville, N.Y. (Ossian Grange Hall)
	Millerstown, Pa. (Greenwood H.S. Auditorium)
March 13	Schuylerville, N.Y. (Amer. Legion Hall)
	Columbus, N.J. (Grange Hall)
	Portville, N.Y. (Central School Auditorium)
March 14	Falconer, N.Y. (Grange Hall)
	Hampton, Pa. (Community Fire Hall)



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WHAT THE WIVES DO

MY husband and I, having been lifelong subscribers (as were both our fathers before us), particularly enjoy the page of farm experiences. But I wonder occasionally that more of them do not come from the viewpoint of the farm wife.

A maddening morning recently would surely discourage anyone **but** a farm wife, who eventually becomes accustomed to such routine. It really **started** building up to a crisis about three weeks ago when I went out to put the back seat in the car before taking off on an errand, and discovered the seat WAS NOT THERE!

My husband takes the back seat out occasionally to make more room to cart stuff (we no longer have a truck) and when he does, it stands beside the car, under the shed at the back of the house. We hadn't happened to need the seat in place for a couple of weeks, so I couldn't imagine what had become of it. But when the Boss said, "Why, it must be right there" . . . in the tone that means, "Can't you see past the end of your nose? . . . I let him look! It still wasn't there!

Now this is a shock out here in the country, where until a few years ago nobody even locked their doors. But it was duly reported to the State Police, in hopes that if there was a rash of pilfering in the area, they might turn up the culprit. They helpfully exclaimed, "Well, we got a bunch of smart kids around here with cars like that," and would let us know if they heard anything. We then reported the theft to our insurance company and found that our comprehensive covered it, so proceeded to call our car dealer to order a new seat.

The difficulty in merely ordering should have given me a clue as to what was to follow. I naively thought I could do it by telephone. You know, "let your fingers do the walking."

After getting all the letters and numbers off the door plate, and giving year and model number, the fellow in Parts Department apologetically allowed as how there were also numbers for color coding, and he guessed I would have to bring the car in next day so they could be sure of ordering the right color. . . "Ask for Howard." So the next morning I drove the five miles to the garage, which had recently moved out the other side of town to a new location, hunted up the Parts Department and asked for Howard. He wasn't in just then . . . could I come back in half an hour?

I explained that our back seat had been stolen, we just wanted to order a new one, they had all the information except the color, and it would only take him a minute to look at that. "But I'm all alone here right now and I can't leave (not another customer in sight). Howard will be back in half an hour." He finally consented, reluctantly, to go look inside the car. "It will take a week to get the seat; we'll send you word when it comes."

You guessed it! Three weeks went by . . . no word. So I called Parts . . . sorry, it's Saturday morning, and Parts isn't open on Saturday! But when the mail came later in the day, there was the card saying, "Your order has arrived. Please pick it up within the next week."

Fun Begins

That's when the real trouble began. Monday morning my husband went in to get the seat. "Sorry, it isn't assembled yet. Come back on Wednesday." So what's to assemble? "But it isn't ready yet . . . come back on Wednesday."

On Wednesday my husband

(Continued on next page)

NEW JERSEY ENDURANCE RIDE

This year's 100-Mile Endurance Competition will take place in the Wharton Forest, a New Jersey State-owned wild life and nature preserve in south central New Jersey, approximately midway between Atlantic City and Camden. The dates are May 16-19. For full details and entry blanks, write to Mrs. Barbara Carlson, Ride Secretary, Box 247, Lafayette, New Jersey 07804.

Move Up To Higher Profit Crops!



Hoffman High Seed Quality Puts More "Yield Power" in Forage, Hay Crops!

■ Here are two fundamentals to help you move up to higher crop yields: (1) buy the best quality seed you can find. (2) select the right seed variety for your particular conditions and needs.

Hoffman is a farm seed specialist . . . has been since 1899. Producing or procuring the best in farm seeds is our year-round occupation.

PLUS LOCALIZED SERVICE

There's a Hoffman Seed Man in almost every locality. He knows local crops and growing conditions. He is kept up-to-date on new ideas of crop management . . . new varieties. He can explain the advantages of HPS Formulas . . . an exclusive Hoffman development. He'll make sure that you have your seed in ample time for seeding. Order now for the year ahead.

See your Hoffman Seed Man or write to A. H. HOFFMAN SEEDS, INC., Landisville (Lancaster Co.), Pa. 17538, for your free Hoffman Catalog for 1968.

PLANT NEW ZEA IIII FUNK'S G HYBRID

More 200-Bushel Yields Than Any Other Hybrids

- Unmatched Yield Power.
- Rugged Dependability.
- Proven for Narrow Rows and High Populations.
- Highest Quality Grain.

In one growing season ZEA IIII Funk's G-Hybrids have more than fulfilled their promise as the most exciting new hybrids in corn growing history. Corn farmers everywhere are talking about these new single, special and 4-way cross hybrids.

Funk's G-Hybrids have produced over 65 yields of 200 bushels or more per acre with 22 different varieties. No other brand can match this record.

These hybrids give you maximum return from your increasing investments in fertilizer, weed killers and insecticides. Funk's-G ZEA IIII Hybrids will help you reach new, higher yields when moisture and fertility are right . . . and the best-possible crop under less desirable conditions.

The supply of germ plasm for some of these new strains is limited and our stocks may not meet demand. Order now for 1968.

Hoffman®
FARM SEEDS
ALFALFA · CLOVER · OATS · HAY · PASTURE · FORAGE · COVER CROPS

FUNK'S G HYBRID

had an all-day meeting, and no time to stop at the garage. Thursday morning, having errands to do in town anyway, I said I would run on out and pick it up.

So when I get to Parts and explain that I came back to pick up the car seat they had ordered for us . . . "Oh, that's Service. You'll have to go to the Service Department for that."

Busy People

Service has two men in evidence when I find it . . . both busy, of course. To the first one available, I explain again that I came in to pick up the car seat. "Oh, I've been out sick . . . you'll have to talk to Carl about it," motioning toward his partner. Wait interminably until Carl finishes his purely social conversation with someone else! Now explain all over again that I came to pick up the car seat which was not ready on Monday when my husband was in, despite the notification we had received. "Oh, he was supposed to bring the car in Wednesday!"

"So he had a meeting yesterday and couldn't come in; I'll pick it up this morning."

"But it's written down right there . . . he was supposed to bring the car in yesterday!"

"What's to bring the car in for? I'm here and I'll take the seat, please."

"Well, it's upstairs. Can you come back tomorrow?"

"I suppose I can if I have to, but I could carry it down from 'upstairs' myself, if that's all the problem." But I am making absolutely no headway, so I might as well leave. By now I am mad enough to spit!

There being no street parking near the store, I went in the public parking lot across the street, where the meter takes only nickels, and wouldn't you know it . . . I didn't have a nickel! But there is a convenient change machine, where you put in a quarter and get back nickels . . . if you aren't jinxed! I WAS! No change and no way to get the quarter back! So take a chance, and leave an empty meter.

The shipping charges on the order at Sears were more than I expected, and counting out every penny I had left, I was still five cents short . . . drat! Back to the car for the checkbook, which I had forgotten in my hurry, just in time to see someone else put a quarter in that change machine. I paused long enough to see that he got no change either, and told him I had tried it too with the same results. "Nice racket the town has here," he said as he walked off.

By then, I was wondering if trustful suckers would keep feeding quarters to that pesky machine all day, so took time to go on around to Police Headquarters to give **them** a hard time. The nice officer at the desk (whom I had gone to school with, back in the dark ages) assured that yes, they **had** had a little trouble with that change machine, but if I would just go back to the parking lot and wait, he would try to locate the meter officer and get my quarter back! By this time I had had it, and couldn't wait to get home, quarter or no quarter.

Friday morning my husband went back to the garage for the car seat. It was ready and waiting, and everyone was nice to him! he also got a bill for $112.48 . . . no **wonder** someone stole that seat!

I'll bet almost any farm wife could match these exasperating details of "running the errands" that are expected of us! But we still wouldn't swap for a city life. One of my guests, who had obviously never been on a farm before, came down in the morning and said, "My, what do you find to do with yourself all day, way out here in the country?"

Run errands, among other things! — *Mrs. Donald H. Roy, Newton, N.J.*

CLEAN WATER

Here are recommendations by Dr. G.W. Fischer of Honeggers for keeping poultry waterers clean . . . and thereby help prevent enteritis and mold conditions of the crop and intestine:

Equipment: A stiff bristle brush in a size and shape that conveniently fits the waterers. Quaternary ammonia disinfectant in a squeeze bottle dispenser.

Procedure: Open the drain plug of the waterer, squirt some disinfectant near the inlet or float valve, and scrub vigorously down the length of the trough squirting additional disinfectant into the trough about every 4 to 8 feet. Allow fresh water to flow through the trough to carry away excess feed and debris in the bottom of the trough. Refill the trough with fresh water.

Frequency: Clean waterers three times weekly; more often in the summer time if the condition of the waterers require it as measured by slime build-up.

Follow-up: Check cleaning schedule to be sure waterers are being washed as directed. Check the effectiveness of cleaning procedures by feeling for slime deposit on the interior of the trough at or just below the water line.



From field to feedlot, the Farmhand Bale Handling System takes the hand labor out of bale handling. Helps you get hay up early. Means more dollars in your pocket because you reduce the risk of rain and weather damage. Your hay has more nutrition.

Start off with the **M-25 Wheel Rake.** Gets all the hay, even over the roughest terrain. Does it gently, fast. You never lose valuable leaves or seeds. Windrows are fluffy, fast-drying.

For fast drying, the Farmhand **Windrow Turner** puts the damp underside up. Rolls hay gently without shattering leaves.

Now you begin to save real money. The **Bale Accumulator** cuts time and cost. Bales are automatically arranged into 2-bale rows as they come off the baler.

Follow up—while you are baling, or after—with a Farmhand **Loader (F-11 or F-21)** equipped with a **Power Bale Fork.** Quickly and easily handles bales in 'packages of eight'. Hydraulically powered hooks, two per bale, grab and hold bale securely while loader lifts and stacks them. Bale Fork also compacts each 8-bale pack as it is handled. With the Farmhand high lift loaders, stacks can go 14-tiers high. Stacks are neat, tight. Means less water damage, better hay preservation.

Let your Farmhand Dealer explain the complete system. Stop in and see him soon. Tomorrow? Farmhand, Inc., Hopkins, Minn. 55343.

FARMHAND
MECHANIZED MUSCLE FOR TOUGH JOBS



Citations for distinguished service to New Jersey Agriculture were presented to the four men shown here with Secretary of Agriculture Phillip Alampi (center). Left to right: Insley H. Roy, Green Township, a dairyman and one of the founders of the Livestock Cooperative Auction Market Association of North Jersey; Walter M. Ritchie, Freehold, veteran landscape nurseryman, and former member of the State Board of Agriculture; Fred W. Jackson, Pennington, former director of the Division of Information, State Department of Agriculture; and William M. Nulton, Somerset, field secretary of the New Jersey Guernsey Breeders Association for 45 years.

"Johnny Appleseed" – Dr. Max E. Brunk, Cornell University economist, was presented the "Johnny Appleseed" award for his contributions to the New York apple industry. He is the first recipient of this award presented by the Western New York Apple Growers Association. Among other contributions to the industry, Dr. Brunk developed the popular poly bag for apples and other produce.

Organizer – Dr. Russell B. Dickerson, associate dean of the College of Agriculture at Penn State, is helping the State of Maharashtra, India, to organize an agricultural university. The College of Agriculture has had a team of four agricultural scientists working to help transform India's traditional farming methods into more efficient means of increasing food production. Dr. Dickerson will assist in establishing curriculums, courses, and facilities, professors and agricultural leaders from Maharashtra will be trained at Penn State, and an exchange of visiting professors and graduate students will take place between the two universities.

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Cow Belles – Local Cow Belle units (the auxiliary of the New York State Beef Cattlemen's Association) were formed throughout New York State, with projects designed to promote their husbands' product . . . beef. Included are plans to distribute posters and materials for beef for Father's Day, a food booth at the Empire Farm Days at Canastota in August, and nutrition programs for women's groups.

Serving on the board of directors are: Mrs. Bradford Sherwood, Apple[illegible]rs. Clayton Taylor, Lawto[illegible]rs. Myron Lacy, Ithaca, Mrs. Scott Traxler, Dansville, and Mrs. Merritt Howard, Forestville. Mrs. Dale Werth, Cohocton, was reelected president; Mrs. Howard, first vice president; Mrs. James Cash, Franklinville, second vice president; Mrs. Taylor, secretary-treasurer; and Mrs. Jay Silsby, Gasport, assistant.

❖❖❖

Additives Permitted—An amendment to the Pennsylvania sausage law allows up to 3½ percent soy protein concentrate and non-fat dry milk to be used as additives, but the sausage products must be labeled to indicate the addition.

❖❖❖

More Birds – Sullivan County (New York) agent Earle Wilde reports that housing for a million more laying hens is being built in the county . . . with half of it being accounted for by two separate units that will handle 250,000 each.

Incidentally, meetings have been held in Sullivan County to explore the possibility of a poultry-waste-product disposal facility involving oxidation of manure at high pressure and temperature. A pilot plant costing around two million dollars is being discussed, with governmental research grants being sought.

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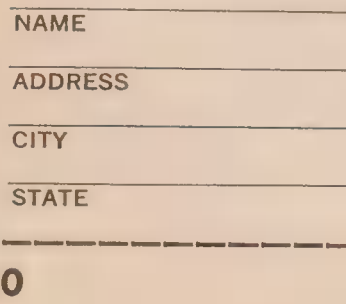
General Manager – Ralph K. Lydman, Canton, New York, has been appointed General Manager of New York Dairy Herd Improvement Cooperative. Mr. Lydman has had experience as cooperative Extension agent, farm manager, sales representative, as well as working on the family dairy farm at Livingston, New York.



Ralph Lydman



NO WIDER in transport than 8′, 10′ or 12′ center sections. Sets of 3′ or 4′ foldable wings can be added in field. Trail without snaking at moderate speeds.



BRILLION'S EXCLUSIVE TOOTH LOCKING DEVICE assures positive tooth clamping and adds strength to tooth bar. Clamps are quickly adjusted with single oversize set screw. Greater tooth height gives more trash clearance.



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It's rugged and hefty — won't flex or twist out of shape. Special high-carbon spring-steel teeth — 11⁄32″ thick — vibrate clods into fine, friable seedbeds, from 8′ to 20′ wide per pass. They have 7″ higher trash clearance than other makes. This minimizes trash build-up and simplifies dumping. *New features include improved locking device for securing teeth to tooth bar and new bearing design.* Choice of 28 models — 8′ to 20′ — including new pick-up types with 3-point Category II pick-up or quick-coupler hitch — and optional heavy-duty 3⁄8″ teeth. Mail coupon today.

STH-120

VEGETABLES



Professor E. Stanley Shepardson (right) of the New York State College of Agriculture, and one of his assistants examine cabbage heads cut by machine.

Cabbage Harvester — Almost ready for commercial production is a cabbage harvester designed by Cornell agricultural engineers that does a good job on both sauerkraut-type and fresh market and storage-type cabbage. Two discs positioned near the ground get under the cabbage plant to hold it, the plant is lifted onto a special double-chain elevator which pulls root and all out of the ground, and a rotary saw cuts the head off so that no stump is left. The machine travels at one mile per hour, and at this rate can harvest an acre in two hours . . . doing the job of 10 to 12 men.

Replace Weed Sprayer? — Herbicide-treated cloth may some day replace the weed sprayer around the home. Cloth developed at Beltsville, Maryland, is now being tested by several companies for possible commercial sale. Simple for the homeowner to use, the herbicide-treated cloth could take the guesswork out of weed control, and eliminate messy mixing. The user would simply buy the correct size to fit a flower bed, or cut pieces to fit small or irregular beds . . . or even plant pots.

Good Winter Job — A research project at the Potato Handling Research Center, Presque Isle, Maine, indicates that seed potatoes can be cut, treated, cured, and stored for as long as two months before planting. Kennebec and Russel Burbank were used in the test, and the pieces treated with a fungicide dust. The pieces were then piled 6 feet deep in bins, temperatures held at about 60 degrees F, and relative humidity of 90 percent or more was maintained by adding moisture to the air. Air was circulated through the piles by fans. The researchers feel that chemically-treated and properly-cured seed pieces grow into better stands than fresh-cut seed when field temperature and moisture conditions are poor.

Blackleg Reappears — The fungus disease called blackleg of cabbage staged in 1967 a comeback in New York cabbage fields after an absence of 30 years. The disease shows up on both the leaves and stem of the plant. A wide black ring appears around the stem at and below the soil line, and may cause the entire plant to die. The leaves show dime-size brown spots in which many tiny black dots appear.

Diseased fields should be harvested last, and plowed immediately after harvest to hasten the rotting of the diseased plant material. **These fields and contaminated seedbeds should not be planted to cabbage or other crucifers for three years!**

The disease may also affect broccoli, Brussels sprouts, and cauliflower.

New Potato — Research by the Wise Potato Chip Company, Penn State University, and the USDA has culminated in producing a new potato especially bred to meet the needs of both growers and food processors. It processes into light-colored chips under a wide range of conditions, including storage at 50 to 55 degrees F, and produces an even grade of potato chips.

The Lenape, named after the Lenni-Lenape tribe of Delaware Indians who once lived in Pennsylvania, is a medium-late variety, has medium resistance to verticillium wilt, good resistance to four diseases: late blight, tuber symptoms caused by stem-end browning, net necrosis following leafroll infection, and mild mosaic. Seed potatoes for general use are expected to be available for the 1969 planting.

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HAY *Cut it often; crimp for excellent quality, nutrition, and taste-appeal*



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COVER CROP *Sudax Brand growth shades weeds quickly.*



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GROWS LIKE CRAZY
Sudax Brand Hybrids are especially selected crosses which show a high degree of vigor in early growth, and quick regrowth after cutting. Regrowth can exceed two inches per day under favorable conditions. Sudax Brand Hybrids have excellent tolerance to dry weather.

YEAR 'ROUND PROFIT CROP
Users have found that Sudax Brand Hybrids can provide excellent feed, as summer pasture or green-chop, and as quality hay or low-moisture haylage for winter.

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Haylage and grass silage bring out a blower's "true colors." The Hi-Throw's color: *powerful*. When the going gets tough, Gehl's 55-in. Hi-Throw outperforms *any* other blower made, every time.

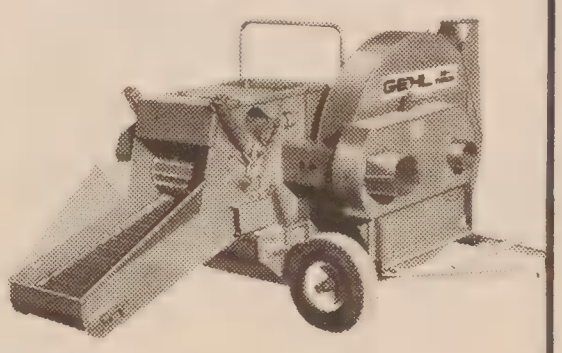
No plugging, no silo-filling slowdowns. Hi-Throw keeps big forage harvesters chopping . . . forage boxes on the move for more. No wonder 1 of every 3 blowers sold is a Gehl!

Capacity-building features of the new 55-in. Hi-Throw tell why: • 20-inch high, 30-inch wide hopper • 10-inch diameter auger • full-width, throw-out safety clutch • triple steel pintle chain conveyor • positive feeding to auger • adjustable fan housing • "quick-touch" leveling adjustment • water intake opening • recessed wheels • adjustable air intake.

Inspect them all at your Gehl dealer. He can show you three other Hi-Throw models . . . and the full Gehl line.

New RC800 Recutter for the 55" Hi-Throw turns out 9,000 cuts per minute . . . through haylage, high-moisture ear and shelled corn and corn silage (high and low moisture). Features: 9 tungsten-carbide knives and built-in knife sharpener; big 24" cylinder, over 1,000 sq. in screen area and wide screen choice. It's a big-capacity reason to go Gehl.

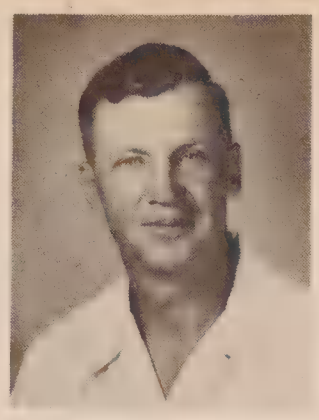
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Gayway Farm Notes

by HAROLD HAWLEY

HIGH-MOISTURE CORN

One of the exciting changes in dairy farms in central and western New York has been the inclusion of plans for ensiling high-moisture corn. The various methods of harvesting, grinding, and feeding constitute a whole story in themselves.

An aspect of this whole switch from cribbing ear corn has to do with the sale of high-moisture corn from farm to farm. If he abandons cribbing ear corn, a grower has about three choices. He can buy and operate a dryer and store or sell his own dried shell corn. He can sell his shelled corn and take a deduction in price to cover the buyer's cost of drying and the shrinkage which accompanies the drying process. In either case, it costs a lot of money to get the moisture out of a corn crop. Selling "wet" or dried corn in commercial channels at harvest time naturally means selling at the low price time of the year.

A third method of selling corn is now evolving. In the past, many of us tried to sell our extra corn to other dairymen who could grind the cob in with the grain. This saved the cost of shelling, and enabled the selling farmer and buying farmer to each fare a little better by the elimination of that cost, plus the necessary margins that have to occur when corn goes through commercial channels. While there was and is the problem of finding cash buyers, much corn has moved from farm to farm as ear corn.

Now a growing tonnage is moving from farm to farm as high-moisture corn. The grower works out a deal with a dairyman who wants to fill a silo with HMC. They agree on price, allowance for moisture, hauling, etc. This has the potential of being a good deal for both provided they both know the market and the moisture.

One of the annoyances of this system is the need to co-ordinate picking, hauling, and ensiling. This is no sweat when weather is good and picking is moving right along regularly. It becomes a nightmare when rigs get bogged down in the mud. It also becomes a cause for high blood pressure when the truck fails to return and all the picking wagons are full.

In spite of some obvious problems, the practice of selling HMC from the field seems almost sure to increase. Dairymen can save enough on their feed bill compared to buying corn at retail all year long to make it a good deal to use a silo, so they can buy corn in the fall at something like farm prices.

As a seller of corn, I hope this will happen so that the extra demand for corn at harvest time will strengthen the price then. We have always felt that it was good business to crib and store for sale the following summer. We've arrived at a point where we aren't sure we want to continue to keep cribs in repair and tie up money in a crop for an extra six or eight months. If harvest prices would strengthen a little, we might feel it was better business to sell the corn right out of the field in the fall.

ENDLESS VARIATIONS

It seems we never go to a meeting but we hear someone telling of a new or at least a different way of handling high-moisture corn. As with so many other things, there will eventually evolve a concensus as to the best way; in the meantime, most of us will be limited by what equipment we already have.

In addition to the more common practices of blowing in shelled corn (with or without ground cob) from the combine or picker sheller — or the grinding and blowing in of ground ear corn with some variety of cutter, grinder, or chopper at the silo, the most intriguing of the specialized harvesting equipment is the picker-grinder. With this rig the ground or cracked grain and cob can be run back into a self-unloading wagon. At the silo, the unloading job is the same as blowing in corn silage.

It's not my intent to indicate that anything goes, but it sure is amazing the wide range of moisture content in the grain corn which has gone into silos for the last few years. Unless folks are covering up about error in their system or practice, we must believe that they are having good feed in spite of the corn having gone in dryer than was thought possible.

In our case, of necessity we have put corn in both wetter and dryer than we thought ideal without being able to see much difference in the feed. One thing of which we are convinced is the need to keep filling once we start. If something causes more than a two or three day break in filling, a layer of mold will begin to form on the surface. How much of this is serious I don't know, but it certainly doesn't improve feed, and no one wants to have perfectly

(Continued on next page)

good corn burned up and molded if it can be avoided.

In most small and medium-sized silos there shouldn't be much danger of spoilage during the following summer unless the herd size is quite small. Here again, a layer of corn taken off each day seems to be about all that is necessary. We normally feed off two to three inches a day with a silo unloader, and this seems to keep us pretty well out of trouble.

If we can feed enough energy this way so that all we need in the parlor is a high-protein feed, we will have fed our cows about as well and as cheaply as any way we know. It goes without saying that whether the roughage fed is all corn silage, or corn and hay silage, or corn silage and hay will influence the amount of protein needed in the parlor.

UREA

We have been most pleased with adding urea to our corn silage (10 lbs. / ton). Having now moved to a high-protein grain with no urea in it for our parlor, our total urea intake is far below what some regard as the safe level. With this in mind, and in view of the low cost of getting protein with urea, we are seriously considering adding urea to the haylage this summer. If we can push up its protein a point or two, it will help in two ways. First, it should lower total feeding costs, and secondly, it should help assure the dry cow of enough protein even if she does not go through the parlor for a while.

HAZARDS UNLIMITED

Just read over the list of 16 hazardous jobs on which hired help under 16 may not be employed. A few of these make good sense. Certainly a kid should not be working with explosives. Some of the other provisions are a little less obvious. The whole code will have the net effect of making it impractical to hire youngsters under 16. If they can't do anything except maybe hoe in the garden (better not let them use a sharp hoe) or something else that's equally "safe" and unexciting, it's doubtful if many farmers can use them.

I'm intrigued by the prohibition against any youngster working in a yard, pen, or stall occupied by a dairy bull, boar, or stud horse. It becomes important to know just what this means when you reflect that the penalty for willful violation is $10,000 fine or 6 months in prison. Talk about unreasonable and unusual penalties! Well, when does a bull calf become a dairy bull? If you let a kid clean calf pens with a bull calf in it, at what point does this job become hazardous? And what about a beef bull?

I'm as interested in safety as most and certainly don't like to see kids working where there is high risk – and especially if they aren't properly instructed on the right and safe way to do things. Regulations such as these issued by the U.S. Labor Department should have the long run effect of producing more juvenile crime as kids who can't get jobs may find mischief.

WOMEN-BLESS 'EM

At the risk of going too far and making a rash statement I can't prove, I'm going to put forth the proposition that there are differences between men and women. Such a radical statement must be defended, which I will now try to do.

The gals, Lord love 'em, are forever worrying about the odd extra pound or two they have somehow acquired. The number one topic at any gathering seems to be diets, weight, etc. I've not yet decided whether this weight bit is just something like the weather – merely a conversation piece about which few do anything.

What leaves me so puzzled is to hear all this talk and then to observe that each and every gathering of a bunch of our lovely wives and neighbors is an occasion for some of the best and most fattening refreshments known to woman. It's a kind of contest, with the hostess scoring extra points for a new and unusually-rich dessert. Her calorie-conscious guests forget their diets and wade into this hi-octane fuel, and at one sitting take on enough energy to fully nullify a week's conscientious self denial!

Their male counterparts, mostly reluctant to even admit they are trying to battle the bulge, seem less contradictory in their approach. Not having spent the early part of the meeting discussing calories, they feel no compulsion against a full scale attack on the goodies. Is it any wonder I note the difference?

Husband: The boss gave me two tickets for the theater.

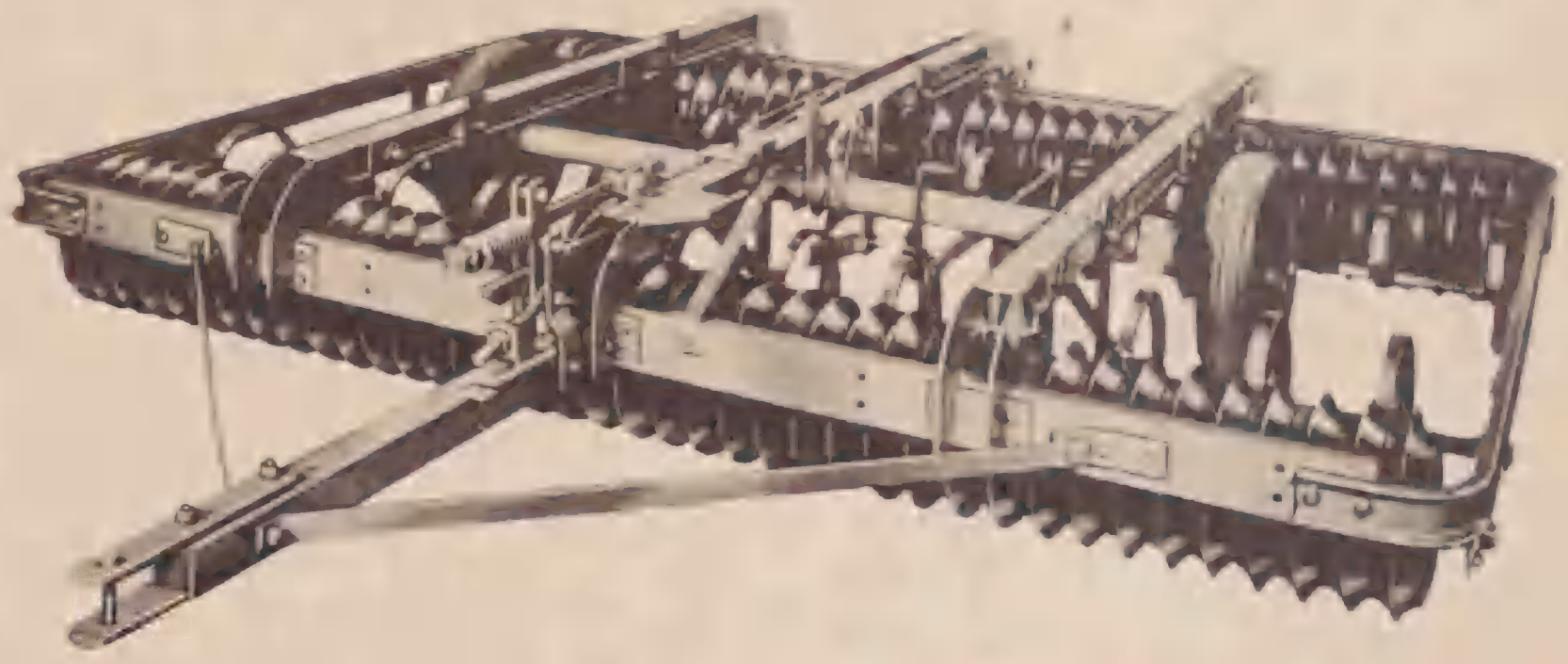
Wife: Good, I'll start getting dressed right away.

Husband: Do that, the tickets are for tomorrow night.

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Traveling with American Agriculturist and Travel Service Bureau, our tour agents, is the nicest way in the world to see Europe (or any other country, for that matter), and we cordially invite you to visit Scandinavia with us this spring. For three wonderful weeks (June 5-26), we will thrill to the great variety of attractions offered us in the Land of the Midnight Sun.

With the sun shining around the clock above the Arctic Circle, even the southernmost areas of Norway and Sweden are brightened. This makes longer days for sightseeing and enjoying Scandinavia's colorful celebrations and folk festivals.

Here in a nutshell is what you will see on this friendly, carefree, all-expense, escorted tour:

All Aboard! – From Kennedy Airport we travel on a sleek Pan American jet liner to Hamburg, Germany, where we board the bus that will be our home on wheels during the entire trip.

Denmark – We travel through Fairy Tale Land to Ribe, oldest village in Denmark and the place where the storks come annually to roost on the chimney tops, and then to Odense, Hans Christian Andersen's birthplace.

We spend three nights in Copenhagen, considered by many to be Europe's gayest city. We'll see the marvelous Tivoli Gardens, the royal palaces, Hamlet's Castle, and enjoy shopping in the fabulous stores for silver, porcelain, and stainless steelware.

Sweden – We cross the fertile, lake-dotted countryside on our way to Stockholm where we'll visit among other things Riddarholm Church, the renowned Town Hall, Royal Palace, and Nicolai Church with its statue of St. George and the Dragon. Here also we'll enjoy shopping in the well-stocked stores, and the special bargains in Swedish stainless steel are a must.

Dalecarlia is Sweden's most fascinating Province. In Uppsala we will see the famed cathedral and university and spend a whole day leisurely roaming through this delightful section.

Norway – We continue over the mountains through ever-changing scenery to Oslo, beautifully situated at the head of the magnificent Oslo-fjord. From Oslo we will have the opportunity to make one of the most popular excursions available in all Norway - a trip north of the Arctic Circle to see the full disc of the sun at midnight. We urge you not to miss this trip, for everyone who has taken it says it is a highlight of the whole tour.

We'll spend four more days enjoying the majestic fjords, beautiful springtime flowers, quaint houses, snowcapped highlands and breathtaking scenery of this fascinating country. We'll climax our trip by boarding a fjord steamer to sail down the full length of the Sogne-fjord, making frequent stops at tiny villages along its shores, and finally arriving at Bergen where we spend our last night in Norway.

Homeward Bound – A short flight takes us to London for overnight and early the next morning we leave for home. Because we're flying "with the clock," we reach New York early in the afternoon and will all be home by evening.

Don't miss this wonderful spring vacation! Send today for the illustrated, day-by-day itinerary; you'll be amazed how reasonable the price is for the all-expense ticket!

Easter in Hawaii!

It's still possible to spend Easter in Hawaii this year if you **hurry.** Dates for the tour are **April 6-21.** We'll spend a day in the beautiful area around Portland, Oregon, and then fly to Honolulu to spend two weeks in the "Paradise of the Pacific," visiting Oahu and three outer islands – Kauai, Hawaii, and Maui. Imagine attending Easter Sunrise Service at famous Punchbowl Crater – don't wait another

(Continued on next page)

What to do if your

TRACTOR STOPS COLD!

by Wes Thomas

NORMALLY, a tractor engine in good mechanical condition can be counted upon to operate properly. Occasionally, however, such an engine may suddenly quit with no earlier indication of poor operation. In such cases, the cause is a usually related to conditions which develop suddenly and not to conditions which arise slowly as the engine wears with use.

If the cause is complete failure of one of the major components of the engine or the tractor, it is usually obvious. However, if the cause is less obvious, the easiest way to determine the trouble is a systematic check-out:

Starter . . . Operate starter to see if it will turn the engine. However, if the engine doesn't start readily, don't keep grinding on the starter. Instead, save the battery for the additional cranking you'll need to do as you make further checks to locate the trouble.

Oil . . . Check oil level, especially if the engine resisted the efforts of the starting motor. If the oil is excessively low, lack of lubrication may have caused the engine not to start. In this situation, it's best to haul or tow the tractor in for repair, rather than attempting to get the engine going again.

Vent . . . Vent hole in fuel tank cap must be open. If air cannot enter the tank as fuel is withdrawn, a partial vacuum is produced and the fuel will not flow to the pump.

Fuel-line filter . . . On diesel engines, be sure to follow instructions in your owner's manual to avoid admitting unnecessary air to the fuel system. On gasoline engines, remove the sediment bulb and filter screen.

Inlet screen . . . Clogged inlet of air cleaner may reduce the air supply enough that the engine cannot operate properly. The inlet screen is designed to remove unusually large pieces of trash and dirt, and prevent them from contaminating the main air filter. Unusually large particles may accumulate rapidly on the external screen and choke off the air supply.

Diesel injectors . . . make sure diesel injectors are not clogged. On spark-ignition engines, the condition of the spark plugs should be checked.

Ignition . . . Check for spark to plug by removing one spark-plug wire and holding it by the insulated portion close to the spark-plug tip or other bare metal portion of the engine. Then crank the engine with the starter and see if the spark jumps the gap. If so, continue checking each plug one at a time. If a spark is obtained at all plugs, the ignition system is OK.

Distributor . . . If a spark was **not** received at any of the spark plugs, check for spark from coil to distributor. Remove the center lead from the distributor and hold it close to, but not touching, a bare metal portion of the engine. Then crank the engine to see if a spark jumps here. If so, the trouble is probably in the distributor.

Distributor drive . . . Check distributor-shaft rotation by removing the cap and watching the shaft while the engine is cranked. If the shaft does not rotate, the timing gear or some other part of the distributor drive is damaged.

Midnight Sun

(Continued from page 44)

day to make your reservation!

British Isles and the Far East

Dates for our 1968 British Isles Holiday are **May 5–26**; in addition to the interesting and historic places in Ireland, Scotland, and England which are always included, a special treat is offered this year — a day's trip to Holland to see the famous tulip fields in bloom.

Also, we're offering for the first time a fabulous vacation to the exotic Far East, visiting Alaska, Japan, Formosa, Hong Kong, and Honolulu. We'll take this exciting trip from **May 23 to June 16.**

Whichever one of these spring vacations you choose, you will have the time of your life and travel with the greatest ease and pleasure. On an American Agriculturist tour, there is nothing for you to do but enjoy yourself, and the all-expense ticket covers everything, even the tips. Mail the coupon today!

Gordon Conklin, Editor
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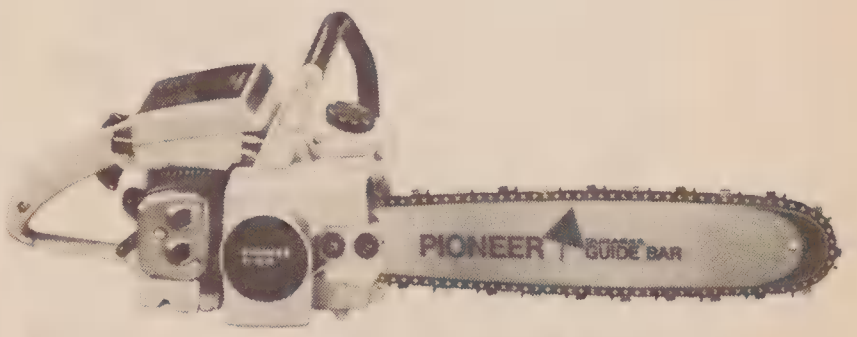
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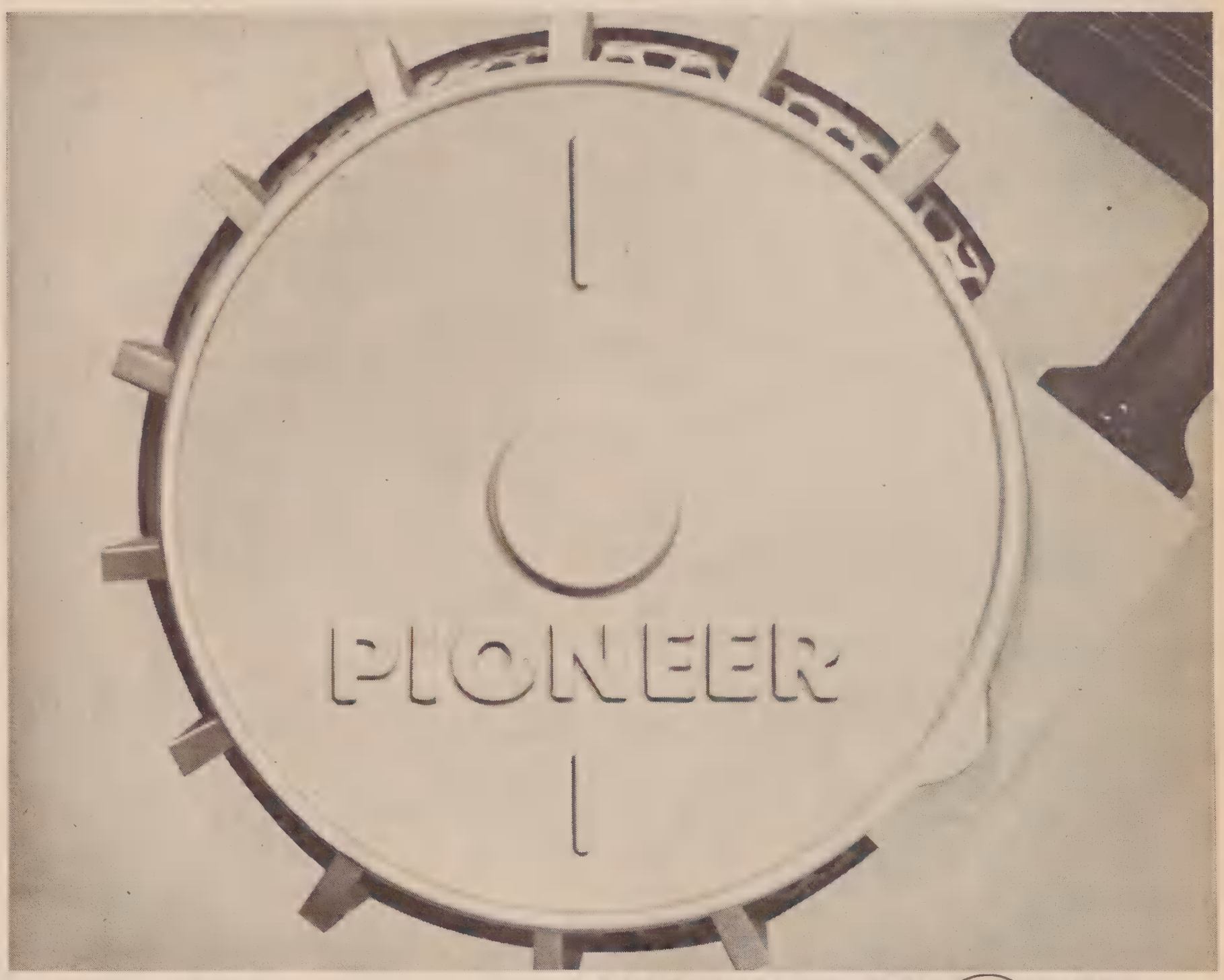
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YOUTH ON THE PLUS SIDE

by Isa M. Liddell

A. A. Achievement Awards Honor Outstanding Young Men and Women Across the Northeast . . .

"This Award continues to encourage our boys to achieve greater heights of leadership than they ever have known."

So says one of the teachers of agriculture who cooperates each year with us in the American Agriculturist Foundation Award Project. And it's the kind of result toward which we are striving, because the good of agriculture, of homemaking . . . and of the young folks . . . is very close to the hearts of everyone on the staff.

Each year we take a good deal of pleasure from reading over the reports sent in by the teachers and by the students themselves. Always we regret that we don't have more space available to share with you more of the really fine achievements of the young people chosen for the Award. So we do our best to give you a representation of the work of all the students, to every one of whom go our congratulations and very best wishes for continued success and happiness.

Starting alphabetically with Connecticut, the Foundation winner at **Housatonic Valley Regional School** was **George Russell.** A good school citizen, George has made outstanding progress, held many offices in the FFA chapter, received the State Farmer Degree in 1967, and is now employed on a large dairy farm.

Agricultural Engineering

A member of **Mount View (Maine) High School, Frank Crosby's** particular bent is toward agricultural engineering. His farming enterprises have included rabbits, swine, and dairy cattle, and at present he has three head of cattle housed in a barn which he built and financed by working at a lumber mill part-time during the school year, and full-time during the remainder of the year.

Jamaica Plain (Massachusetts) High School chose **John G. Gadowski,** described by his teacher as "one of the most cooperative students the school has had the pleasure of graduating in many years." A fine athlete, a good scholar, in the 1967 season John acted as foreman for a group of five men doing maintenance landscape work on some of the finest estates in Martha's Vineyard . . . at a salary of $100 per week plus board and room. John is now in the Stockbridge School of Agriculture of the University of Massachusetts, with a $200 scholarship for his first year's tuition.

At **Wachusett (Massachusetts) Regional High School, James C. Christianson** and his vo-ag brothers built their dairy herd up to 34 animals, and expanded their housing and farm machinery very substantially over the four years of vo-ag training. Jim is attending the State two-year College of Agriculture course.

Bridgeton (New Jersey) High School's choice fell on **Edwin J. Brown.** Edwin has lived with his aunt and uncle, and assumed his share of responsibilities on their farm, besides being an active member of the Bridgeton chapter of FFA, and a member of the Glee Club and the Boys' Chorus.

Raises Prizewinners

Robert Cady, Adirondack (New York) Central School, has developed on his brother Benjamin's farm a small herd of purebred Brown Swiss cattle, from which he has had several prizewinners. At the time of the report he had a total net worth of approximately $5000 in cattle and machinery. Bob is planning to make farming his life work.

Ted Wheeler had a major project of Angus cattle at **Chautauqua (New York) Central School.** He showed them at local fairs, and has now gone on to college to study agricultural business.

Leadership is exemplified in **Duane Oakley,** a student at **Fillmore (New York) Central School.** During his study hall periods Duane worked with individual members of the Fillmore Forum teams on speaking and learning their parts. The result . . . first place in the State FFA Forum Contest for the team! Duane was also chairman of the "Funds For Hope Hospital Ship," sponsored by the student council, which netted $400 for the fund.

High praise comes from Mr. Gordon Mereness, agricultural teacher at **Interlaken (New York) Central School** for **Harold Stewart.** Says Mr. Mereness, "I can say that in all my years of teaching Harold has been my most satisfying student to work with." Harold has an outstanding record in leadership, scholarship, FFA and class activities, dependability . . . mature, responsible citizenship.

Partnership

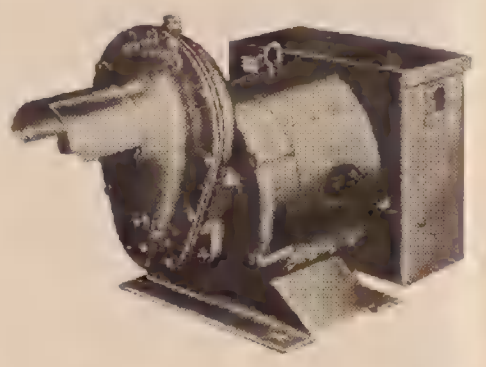
Ronald Dechow, Little Valley (New York) Central School, has a 50-50 partnership with his father on a 20-cow farm, and does all of the chores daily. At Waterloo, Iowa, Ronald, who is an exceptionally-good dairy cattle judge, was a member of the winning New York State team, and gained a gold medal at the national finals.

John Gingerich, who graduated from **Lowville (New York) Academy and Central School,** cared for his widowed mother and an 18-cow dairy while attending school. He earned membership in the National Honor

(Continued on page 47)

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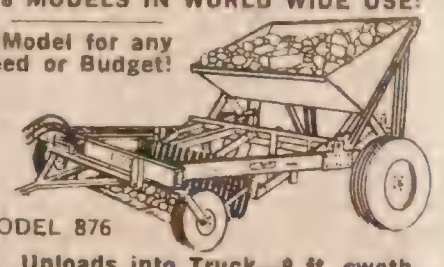
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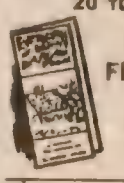
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Youth

(Continued from page 46)

Society, and is building a 12,000-bird poultry house to continue full-time farming.

Mr. Emory F. Faulks, teacher of vocational agriculture at **Wayne (New York) Central School,** writes, "**Gary Eaton** exemplifies the qualities of morality, industry, integrity, and leadership which we need so badly in our society today." Gary was active in sports and in the local FFA chapter. His team won the championship for apple grading, and he was high individual in the contest. Gary has helped on his father's farm for years, and in 1966 took over the entire management of a 10-acre vineyard. He is now attending the State Agricultural and Technical School at Canton, majoring in agricultural business.

Larry Claar, Juniata Valley (Pennsylvania) High School, is a member of a large farm family, and the second boy in the family to enroll in vocational agriculture. He has a diversified project program of beef steer, dairy calf, corn, oats, and hay, and over the four-year period showed a net personal profit of $1167.

At **Chester (Vermont) High School** the Award was presented to **Roger Adams.** Roger does not live on a farm, but works on one nearby. He developed his own sugar orchard, and set up a small sugar house. He is now attending a technical college to further his education.

At **Enosburg Falls (Vermont) High School,** winner **Stanley Longley** also has worked on a neighbor's farm for several years. He owns some livestock of his own, and is an active member and officer in the school FFA chapter.

Not Exclusive to Men

The vocational agriculture courses are not exclusive to men, and reports come to us of three young ladies who were members of such classes. **Miss Lesley Ann Farmer, Central Square (New York) Central School,** completed three years of study, majoring in vocational conservation and farm mechanics. Lesley has been an active FFA member, and was selected New York State Alternate Morgan Princess.

At **Rockville (Connecticut) High School, Rosemarie Mordasky** has been an honor student consistently, has taken part in many school and community projects, and has shown strong leadership qualities. And **Annabelle Wiles,** who attended **Poolsville (Maryland) High School,** had an excellent all-around rating not only in agriculture but in academic achievement.

Home Economics

Miss Constance McKenna, department head at **Windham (Connecticut) High School,** writes, "**Cora Prochnow** truly embodies the spirit of vocational homemaking . . . education for

(Continued on page 48)

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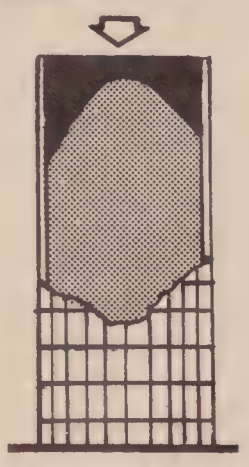
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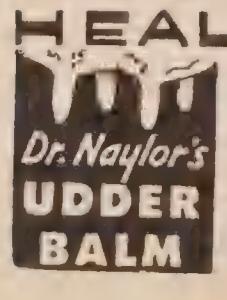
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Youth

(Continued from page 47)

living." Miss McKenna reports that Cora has shown tremendous improvement in realization of the values and goals of vocational homemaking. Her earnestness led her into many extra hours of exploration . . . her only rewards the satisfaction of "finding out."

At **Sabattus (Maine) High School, Melanie Wilding** attained a high degree of understanding in the field of homemaking, its problems . . . and some of its solutions. In addition, she took strong interest in school activities, and contributed much in time and energy to the annual prom and the homemaking fashion show.

Sewing was the subject at which **Gloria Portigue, Alton (New Hampshire) Central School,** became particularly proficient. She completed several advanced projects, such as a wool jumper, fully-lined, and a three-piece cotton crash suit, with which she won first place at the Alton Women's Club School Sewing Contest.

Overcame Difficulties

Miss Katherine Loder, supervisor of secondary instruction at **Bridgeton (New Jersey) High School,** says of their Award winner; "**Sonia Tristani** is a girl whom we admire very much. Born in Puerto Rico, she has overcome a considerable language difficulty in the five years she has been here. She has exhibited her own projects in the school showcases and at PTA meetings, taught Spanish songs, and helped with the child care nursery school projects.

"In her community, Sonia helps prepare meals for migrant workers, and translates letters and conversations of Spanish people in the labor camp where her parents work. She participates also in church activities planned for Spanish-speaking migrant workers. We feel that she is a girl worthy of the recognition the American Agriculturist Foundation brings."

Because of the severe illness of her mother, **Gwendlyn Loomis, Clinton (New York) Senior High School,** had to assume many home responsibilities. In spite of it all, she kept up her school work and held office in the Home Economics Club. She was first prize winner in the annual cherry pie contest. We are sorry that Gwen's mother did not live to see her graduate.

Joyce Bornheimer, Clyde-Savannah (New York) Central School, completed four years of home economics courses, each year showing improvement and increased interest. During the last two years she accepted more and more responsibility both in class and in the FHA. Joyce was chosen for the American Agriculturist Foundation Award because of this steady improvement and acceptance of responsibility.

Leadership ability was shown by **Mary Mitchell** of **Franklin Academy, Malone, New York.** During the year when she wa president of the FHA group ther was more enthusiasm and partici pation than in the past. Studie did not come easily to Mary, bu through hard work she manage to make the honor roll in he senior year. She was trusted an respected by the administration her teachers, and her friends.

Spencer (New York) Centra School chose **Esther Vanderpoo** because of the great improvemen in her work and appearance. He clothing project was best in th class, and her test grades an numerical average jumped t among the highest, even though a serious accident to her brothe made it necessary for her to sta home and care for the younge children a good deal of the time.

"Adopted"

Ruth Parker, Trumansburg (New York) Central School showed exceptional ability in he understanding of children durin class work with infants and pre school age groups. One of thei activities was a play school con ducted in the classroom by th members of Ruth's class, whic resulted in Ruth being "adopted" by little Jimmy, four years old who waited each day in his yard to wave to Ruth as she wen home from school.

Grace Shay was near the to in scholastic rating at **Saegertown (Pennsylvania) High School,** showed the most all-around improvement in the school, quali fied for her State Homemaker' Degree in FHA, was assistan Girl Scout leader in the com munity, and has the ability t get along well with others.

At **Wallingford (Vermont) High School, Ruth Richards** wa considered an outstanding stu dent who showed consistently good citizenship. Her teache says, "She has high standards and values, and is not easily per suaded to change them even i she is in the minority. She worked just as hard during the last quar ter of the year as she did at th first, which is rather unusual; most seniors have lost some in terest by that time."

And again the tables are turned by the fact that **Marcel Mile** was chosen at **Rahway (New Jersey) Senior High School** as a sen ior with a great interest in the foods industry. He was enrolled in the Quantity Cooking course for two years, and showed great perseverence and a well-rounded personality that makes him likeable to friends, classmates, and teachers. During the past two years Marcel has had a variety of jobs that have given him much experience for his future . . . and he is now studying at the Culinary Institute of America.

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FARMS: GENESEE COUNTY AREA. 225 acre dairy or cash crop, $30,000. 255 acre 74 cow dairy, new buildings (1966), productive land, 2 silos, pipeline land, 2 silos, pipeline milker, silo unloader, $66,000. 167 acre beef or horse farm, 80' x 150' barn, 2 silos. Nice 2 family house $60,000. All farms grow alfalfa. Other farms available. Michael W. Kolmetz, Bergen, N.Y. 14416. Tel. 494-1878. Harris Wilcox, Inc., Brokers.

234 ACRE DAIRY FARM in central New York on black top road by owner for sale $55,000.00. 48 cows, 23 heifers, everything in good repair, all machinery. Box 369-PC, Ithaca, New York 14850.

FINGER LAKES REGION. 400 acre dairy and cash crop farm, modern 200 cow dairy farm, 140 acres, 2 silos, nearly new dairy barn, 875 acres with 100 acres grapes, large corn base, others. Salesmen Ed Brickle, Phelps 315-548-3182; Roy deBaere, Phelps 315-548-3328; Lyon Broker, Phelps 315-548-4944.

175 ACRES TILLABLE, ample pasture, carry 125 head. Grade A [illegible] up, stocked or bare. Wholesale and retail milk business optional On state highway in Southern Tier, New York. Box 369-PA, Ithaca, New York 14850.

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FARMS WANTED

WE HAVE MANY buyers for good dairy farms, bare or stocked. New York farm listings requested within 250 miles of New York City. Barmann's Realty Sales, Inc., R.D.#4, Middletown, New York 10940.

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SPECIAL REPORT: Selecting the right bull

Buy a Hereford bull for "outcross vigor"



Now is the best time to buy the right Hereford bull at a more reasonable figure. See how he "nicks" on any cow herd, regardless of their breed: If they are Hereford cows, you can get "outcross vigor" weaning weight gains of over 5%* by selecting from one of the many separate outstanding families within the breed.

*From Hereford X Hereford results on 241 bull calves and 223 heifer calves at U. S. Range Livestock Experiment Station at Miles City, Mont.

...Plus 12 other top profit reasons:

Selecting the right bull can be the most important investment in your management plan for profit. If he turns out to be a herd improver, increases calf weaning weights and calf crop percentage, no other investment will pay back the purchase price so many times over and over. **And the good news is that you don't need to go outside the Hereford breed for big benefits in "heterosis" outcross vigor!**

How can this be? Simply because there are many separate outstanding success families of proven, beef-bred, Hereford bloodlines from which to choose. Alert commercial cattlemen know this and have been upgrading their seed stock by outcrossing among Hereford bloodlines to meet modern beef specifications.

Yes, with careful selection you can match just the right Hereford bull that will get that outcross "nick" on your Hereford cow herd, regardless of what your present situation may be. And there's no "maybe" about these 12 other good reasons to look for the right Hereford bull now.

1. He's pre-potent: Just look at a virile Hereford bull. Note the alert eyes and masculine head . . . he's ready to go to work siring uniform calves. You'll get a quick idea why he's the "nation's top scorer."

2. Bred for Beef to specifications all the way, with massive thickness over the top and thick, deep quarters, to modern "choice" demand specifications. Plus the right size! The calves he sires will not be so little and tidy that they stop at 900 lbs. or so, failing to weigh out or pay out. Neither will they be so mammoth that they fail to make grade and "become feed burners."

3. Aggressively Masculine . . . No lazy ideas here and no bunching up at the water hole. Your Hereford bull knows his job and stays with it.

4. The Great Improver . . . Even if you don't have a Hereford cow herd, you'll find that the right Hereford bull will greatly improve your calves and your profits.

5. Gentle, Easy to Handle. Herefords have more than 200 years of domestic compatability with humans. They're seldom ever wild or spooky. So, you won't always have to be fixing fences.

6. Dependable Pedigree. Your registration or transfer will be backed by the American Hereford Association's reliable, computerized system with the experience of more than 14,000,000 registrations.

7. Hardy, Strong, Healthy. Registered Hereford breeders offer you bulls that are well-conditioned, yet not over-fat, just right to show their growthy, hardy, reproductive potential in any climate or pasture condition. The continuing proof of this is the fact that the 10 toughest states, weatherwise, are the biggest in Hereford numbers.

8. Exclusively Trade-Marked, the photogenic "Hereford red and white," your cattle will be immediately identified as the better kind whether across the fence or miles away on the range.

9. Recorded Performance. Many registered Hereford breeders can offer bulls with "Total Performance Records" behind them. Many others can provide invaluable pre-purchase figures on weight per day of age and calf crop records.

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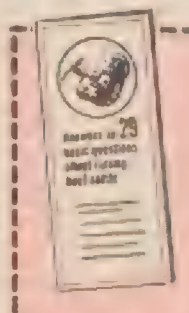
11. 7% More Calves . . . than other breeds, as verified in a national survey for the American National Cattlemen's Association. That's a 7% head start toward building income.

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See your nearby registered Hereford breeder. Or attend this outstanding state auction sale coming up. No doubt one of our 12 field men can help you find the right Hereford bull that will "nick" on your cow herd. If so, write us.

We've given you a "baker's dozen" good reasons. Can you think of one good reason not to buy now . . . **at reasonable prices?**

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JAY BEE HAMMER MILL and bagger. Electric seed cleaner and bagger (Fanning Mill). Case stationary hay baler. John Deere wire baler with Wisconsin V-4 engine. Ireland #2 left hand sawmill—4 extra saws. 1921 Model T Touring Car. 1940 Pontiac Convertible. George L. Page, Willowbrook Lane, Sauquoit, N. Y. 13456.

ALLIS-CHALMERS WD 45, D 17, Ford NAA, 971, Deere 720, 70, IHC 400, Super MTA, Super M & H, WD 9, Oliver 40 SP combine, cab, corn head, grain head. Gleaner A 2 row corn head. Brillion 12' Culti-mulcher. New 8 point rear blades $85.00. New 5 ton wagons $135.00. Next consignment auction March 20, 1968. Costello Farm Service, Inc., Clyde, N. Y. Phone 315-923-5341.

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FOR SALE: Parts cheap (used) Cletrac, Oliver, Cat., Int., A.C., cranes, etc. New and used tracks, rollers, sprockets, idlers, final drives all makes, Carco and Hyster Winches. OC12 with logging winch—$1800, OC12 with angle dozer — $2800. Wanted: Winches, engines, crawlers, parts, etc. Engines: Hercules, GM, Int. Seals and linings, large discounts. Ben Lombardo, RD#6, Sinking Spring, Reading, Pa. (215) 944-7374 or 678-1941.

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SPLIT GIANT ROCKS economically! Terrific 2000 degree kerosene torch, 99 practical uses. Destroys stumps, sprays, dries concrete. 300,000 users. Free literature, Sine, NY3, Quakertown, Pa.

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PORTABLE WOODHOG 16x24" Throat PTO V-Pulley $2000.00. Phone 716-283-3666.

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ANNUAL AUCTION—Saturday, March 9, 1968, 9:30 A.M. (50) tractors, gas & diesel—International—F560, (2) 460, (2) 400, (4) 350, (2) 300, 230, 200, (2) Cub, (2) Super M, (6) M, (6) H, T340 w/loader; John Deere—60, 50, A, B, LA; Case—411, 300, SC, DC; Ford—860, (3) 8N, 9N, 620 forklift; Oliver—(2) 770; Allis-Chalmers—WD, D14. (30) forage harvesters & balers, plows, mowers, planters, forage wagons, blowers, cultivators, etc. Terms—cash or check day of sale. Salem Farm Supply, Inc., Rte. 22, Salem, New York 518-854-3448 or 3471. Stanley & Glenn McLenithan, Auctioneers.



Tony (left) and John Kersmanc, Worcester, N. Y. regularly check milk weights of fresh cows as a guide to grain feeding.

THE KERSMANC BROTHERS' FORMULA FOR INCREASING THEIR HERD AVERAGE

Year	Cows	Lbs. Milk	% Test	Lbs. Fat
1967	48	18,793	3.8	723
1962	49	15,573	3.4	527
—	—	+3,220	+.4	+196

BREEDING For over 20 years, 100% Eastern breeding. Entire herd Eastern sired. Tony says, "We use all the Eastern AI sires in a balanced program. If they're AI Proved, they'll do the job for us." Also use some Selected Sires to help develop future AI Sires.

RECORD-KEEPING Four years of Owner Sampler preceded current six years on DHIA test.

FEEDING DHIA grain feeding recommendations serve as a guide to a maximum of 35 lbs. a day. Grain fed four times daily. Early cut alfalfa fed twice a day in summer added to rotated, improved pasturage. Hay fed five times daily in winter. Cow milk weights checked often, so they are fed to potential.

CULLING No pets in this working herd; cows must produce. Young cows of constantly improving breeding are tough competitors for older animals.

You can put the Kersmanc formula to work on your herd. It starts out with Eastern breeding. See your Eastern technician.



Milking the 48 cow herd is a pleasure for Tony and John (right) Kersmanc. Nice uddered working heifers like these are one reason John says "Cows have to work to stay in our herd, and we're really satisfied with Eastern results!"

EASTERN

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Brand new, first quality, fully guaranteed. In .404", 3/8", 1/2" and 7/16" pitch. Chain for bar of any saw with cutting length of:

12" to 14" $11.00 17" to 20" $14.00
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GUIDE RAILS: New, hard-nose, to fit:
Homelite 17" $17.00, 21" $19.00
McCulloch 18" $18.00, 24" $21.00

SPROCKETS: Direct-drive sprocket $4.00; Gear-drive sprocket $2.50.

Add 50¢ to total order for shipping

(For COD send $2.00 deposit)

Be sure to give saw name, bar cutting length, and pitch used or number of drive links in chain. Send check or money order today to:

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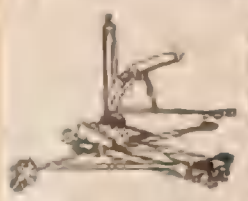
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AUCTION SALE—March 16th at 10 AM. Selling our tractors - farm machinery - construction machinery - Caterpillars - combiners - corn pickers - cornbinders - plows - balers - combines - etc. Hundreds of items to be sold. Accepting Consignments; especially desire Cubs, Fords, one-rows. Phil Gardiner, Route 322, Malaga Hill, New Jersey.

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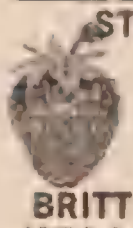
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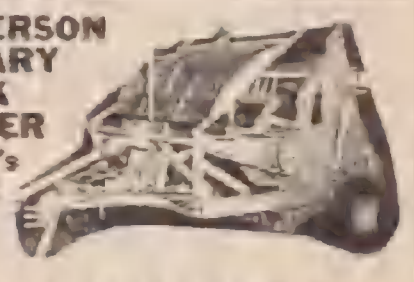
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No. 9 — Yeast Dough Specials

VARIOUS TYPES of yeast doughs provide interesting and tempting baked products to serve family and friends. This month we feature the more familiar type of almond-flavored tea ring, a crisscross fruit braid, Baba, and Danish pastry.

Babas are a light, moist, spongy yeast-raised cake, soaked in a syrup and served with whipped cream; they may be featured as a dessert. The French version calls for a rum-flavored syrup, and our Baba Apricot is a popular substitute. Babas may be baked in either a fancy ring mold or in individual pans, as muffin tins.

Danish pastry comes in various sizes and shapes, filled or unfilled, frosted or unfrosted. It is not really a "pastry," although it resembles the puff paste we find in patty shells, Napoleons, and other dessert puff pastries. Both are butter-rich dough mixtures — rolled, folded and chilled several times before shaping and baking, to form tender flaky layers — but Danish pastry is leavened with yeast and puff pastry with air.

Danish pastry requires a bit more effort than other yeast doughs, but it is fun to make and delicious to eat. No wonder it is so popular with coffee at any time of day! Do not try to make it on a very warm day unless you are fortunate enough to have air conditioning in your kitchen. The dough must be kept cold, so rapid handling during the rolling and folding steps, with sufficient chilling between times are important.

One nice thing is that the dough can be made one day, wrapped in foil and refrigerated overnight, and then formed into the pastries, chilled, and baked the following day. Any fillings can also be made ahead of time. Also, unfrosted Danish pastries freeze well after they are baked and thoroughly cooled. To serve, reheat frozen pastry just until crisp.

SWEDISH ALMOND TEA RING

- ⅔ cup milk, scalded
- ½ cup sugar
- 1½ teaspoons salt
- 6 tablespoons shortening
- ⅔ cup lukewarm water
- 2 packages active dry yeast
- 3 eggs, beaten
- 5 5½ cups flour, approximate

Combine scalded milk, sugar, salt, and shortening and cool to lukewarm. Combine yeast and lukewarm water, stir until dissolved, and add to milk mixture. Stir in the eggs and about half the flour; beat until smooth. Add remainder of the flour, using just enough to make a soft, easy-to-handle dough. Mix well, turn onto a floured board, and knead until smooth and elastic.

Form dough into a ball, place in a greased bowl, brush top with melted fat, and cover bowl with damp cloth. Let rise in a warm place, free from draft, until doubled in bulk. Punch down and let rise again until almost doubled in bulk. Remove to floured board. Use between a half and two-thirds of the dough for the Tea Ring. Refrigerate remainder and use for Crisscross Fruit Bread.

Roll the dough into a rectangle about ¼ inch thick and 9×18 inches. Brush dough with 3 tablespoons melted butter and arrange evenly over top a mixture of ½ cup sugar, 2 teaspoons cinnamon, ½ cup seedless raisins and ½ cup coarsely chopped, blanched almonds. Roll up tightly as for jelly roll, starting with wide side and sealing along edge by pinching together. Bring ends together to form a ring and place, seam side down, on a lightly greased baking sheet. Seal ends of ring by moistening slightly with water and pinching together.

Cut into ring diagonally with scissors, ⅔ of way from outside edge toward center, at about 1½-inch intervals. Turn each section slightly to one side, so cut edge is up. Cover lightly and let rise until double in size. Bake in moderate oven (375) about 20 to 25 minutes. Remove from oven to wire rack and while still warm, drizzle with confectioners' sugar frosting, flavored with almond extract, and sprinkle with sliced almonds.

Crisscross Fruit Bread. Roll remaining portion of dough into a rectangle about ¼ inch thick and 8 inches wide. Spread cooled **Date-Nut Filling** (made by cooking 2 cups finely cut dates, ¾ cup sugar, and ¾ cup water together slowly, with constant stirring, until thickened and then adding ½ cup chopped walnuts or pecans) down the center third of the rectangle.

Cut dough on each side from outer edge, just to filling, in inch-wide strips with scissors or sharp knife. Use ruler to make slits even. Alternating from side to side, fold strips at an angle across filling, slightly overlapping ends of strips. Brush top lightly with melted butter and sprinkle with sugar. Bake in a moderate oven (350) 25 minutes, or until done and lightly browned.



Photo: The Kellogg Company

Swedish Tea Ring is really not difficult to make, and it's sure to please members of your family and guests.

BABA APRICOT

- ¼ cup milk
- ¼ cup butter
- ¼ cup warm water
- 1 package active dry yeast
- 2 egg yolks
- ⅓ cup sugar
- 1 whole egg
- ½ teaspoon grated lemon peel
- 1¾ cups all-purpose flour
- 2 tablespoons dried currants
- 2 tablespoons raisins
- Apricot Syrup

Scald milk, add butter and blend well; cool to lukewarm. Combine yeast with warm water and stir until dissolved. Beat egg yolks, gradually beat in the sugar, then the egg, and beat very well. Combine egg and milk mixture, dissolved yeast, and lemon peel. Stir in the flour and beat until smooth.

Cover and let batter rise until doubled in bulk. Stir down, mix in currants and raisins, and spoon into a well-greased and floured 1½-quart fancy mold with tube center. Let rise uncovered until double in bulk. Bake in a moderate oven (350) 30 to 35 minutes, or until a cake tester comes out clean. Turn out on wire rack and cool slightly.

Prick surface of cake and slowly pour Apricot Syrup over cake. Return cake to mold for several hours to "marinate." Unmold to serve and fill center with whipped cream into which candied fruit has been folded.

Apricot Syrup. Combine ½ cup sugar with ¾ cup apricot nectar and simmer 5 minutes. Remove from heat and stir in 1 teaspoon lemon juice and any additional desired flavoring.

DANISH PASTRY

- 1½ cups butter (3 sticks)
- 4 cups all-purpose flour, approx.
- 2 packages active dry yeast dissolved in
- ½ cup warm water
- 1 cup milk, scalded
- ¼ cup sugar
- ½ teaspoon salt
- 1 egg

Cream butter and ⅓ cup of the measured flour until smooth and well blended. Roll or pat between sheets of wax paper into a rectangle about 11×9 inches. (To help guide you, mark desired size on the paper.) Place on a cookie sheet and chill thoroughly, at least 30 minutes.

Combine scalded milk, sugar and salt in a mixing bowl and cool to lukewarm. Stir in dissolved yeast and egg and mix until well blended. Add remaining flour in two portions, using just enough to make a soft, easy-to-handle dough. Knead dough on a lightly floured board a couple of minutes. Cover dough and chill for 10 to 15 minutes.

Roll dough on a lightly floured board or pastry cloth into a rectangle 15×12 inches. Peel top sheet of wax paper from thoroughly chilled butter and invert quickly over a ⅔ portion of the rolled dough (there will be a ½-inch margin on the end and sides). Remove the second piece of wax paper. Now fold the unbuttered third of the dough over the middle third with the butter. Then fold the remaining third with butter over this. Three layers will thus be formed.

Turn block of dough so the folded side is to the right. Starting from center of dough, roll it into a rectangle about 12×18 inches. If the butter softens and breaks through, ease it back and brush the spot lightly with flour and chill before continuing. Starting from the short side, refold again into thirds as described above. Flour dough very lightly, carefully place on cookie sheet, cover and refrigerate 30 minutes.

Repeat this rolling and re-folding three more times, chilling the dough for 20 minutes between each rolling. This process may be shortened by placing dough in the freezer about 10 minutes between each rolling, being careful not to freeze the dough solid.

Keep dough refrigerated and covered until ready to roll and shape. It may be refrigerated overnight if block of dough is wrapped in foil or other wrap. If not to be used the next day, roll, shape into pastries, place on baking sheet, freezer wrap, and freeze. Do not keep for more than a week before baking. (Extra baking time will be required if pastries are baked from frozen stage.)

When ready to roll and form dough into pastries, roll only

(Continued on page 55)



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Send 50 cents for our new Fashions To Sew Catalog to: **American Agriculturist, Pattern Dept., Box 42, Old Chelsea Station, New York, N.Y. 10011.**

GOOD BAKING

(Continued from page 54)

small amounts of dough at a time. Several forms are suggested below. Makes about 3½ dozen small pastries. Place formed pastries on a lightly greased baking sheet, well apart from each other, and chill 20 minutes or longer.

To bake pastries: Preheat oven to 400°. Remove chilled pastries from refrigerator and before placing in oven, brush lightly with slightly beaten egg mixed with a little water, and sprinkle with sugar. Or omit the egg and after baking, drizzle while still warm with confectioners' sugar frosting. Bake pastries for about 15 minutes or until lightly browned. (Stack trimmings carefully to preserve layers and chill to use for additional pastries.)

Pinwheels: Roll dough ⅛ inch thick and cut in 4-inch squares. Cut a slit from each corner toward and almost to center. Place about a teaspoon of filling on the pastry between each two slits and fold every other point of corners to center; press down.

Fans: Roll dough ⅛ inch thick and cut in pieces 4×2 inches. Place filling lengthwise along center of each, fold over and press edges together lightly. Snip side opposite sealed edge at ¾-inch intervals and curve each fan when placing on baking sheet to separate slits.

Envelopes: Roll dough into strips ⅛ inch thick and about 5 inches wide. Cut into 4-inch squares, place 1 tablespoon filling in center of each, fold corners to center and press down.

Twists: Roll dough ¼ to ½ inch thick and cut in strips 6 inches long and ¾ inch wide. Holding end of strip in each hand, twist in opposite directions. Form in circles, bow knots, figures 8's, snails, etc.

Fillings for Pastries

Fruit Filling – Combine 1 cup pureed cooked dried prunes or apricots with ⅓ cup sugar and mix well; flavor prune with lemon if desired and add ¼ cup chopped nuts.

Almond Filling – Combine and mix until smooth 1 egg white, ½ cup almond paste or ½ cup finely ground blanched almonds, and ⅔ cup confectioners' sugar.

Pecan Filling – Combine and mix well 3 tablespoons soft butter, ½ cup confectioners' sugar and ½ cup finely chopped pecans. Walnuts may be substituted and jam, jelly or preserves used if not too runny.

DO YOU HAVE . . .

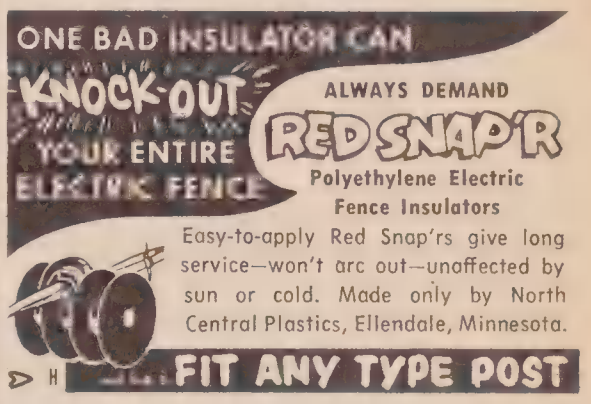
Any information where **Mrs. Mabel M. Yingling, Route 2, Hanover, Pa. 17331,** can find "old embroidery thread of J. & P. Coats-Clark's O.N.T., also Cartier-Bresson C-B embroidery thread?"

A recipe for old fashioned pork cake? **Mrs. Cyrus Pierce, R. D. 1, Putnam Valley, New York,** says her mother used to make it by chopping pork fat until it was soft, then adding molasses, spices, raisins, etc.

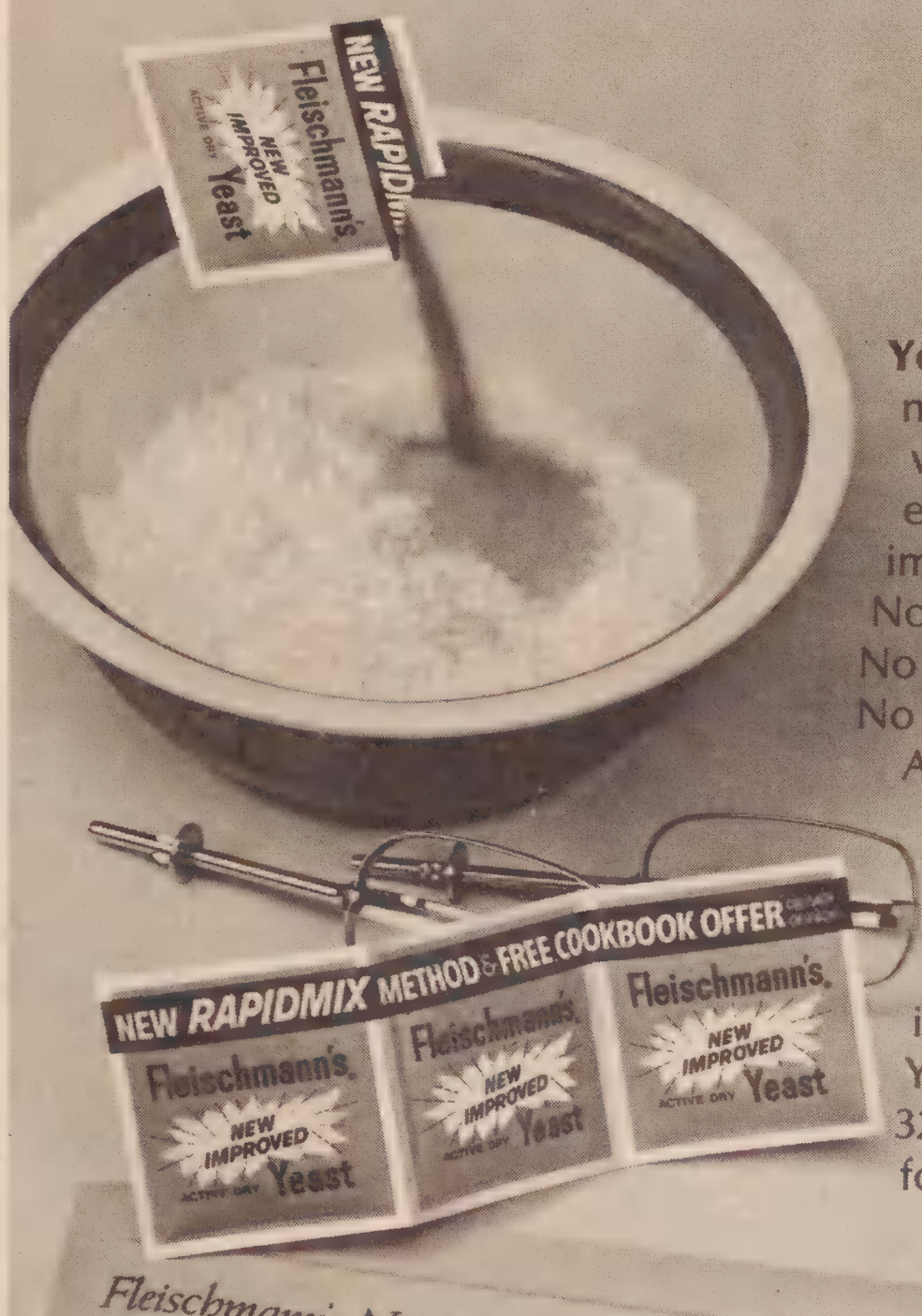
A recipe for "form" cake. **Mr. George Buettner, Long Island Ave., Medford Station, L.I., New York,** says it is a German recipe and has raisins and citron in it, as well as yeast.

Thanks!

Mrs. Charles Christensen received nearly 70 recipes for sour cream pie after her request appeared in our January issue. She wishes to thank each person who wrote her.



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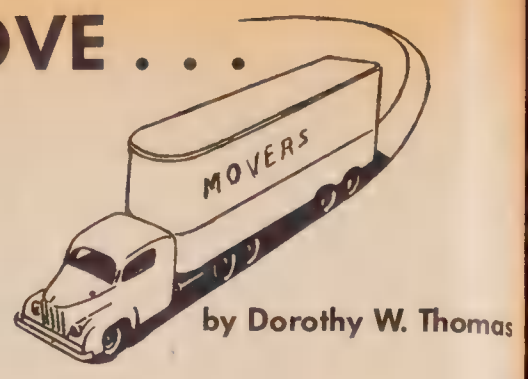
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WHEN YOU MOVE . . .



by Dorothy W. Thomas

NEARLY EVERYONE moves once or twice in a lifetime, and many people move every two or three years. In any event it is a painful process, and any tips to make it less so should come in handy.

To begin with, we can't say enough for commercial movers! Recently we moved from Ithaca, New York, to southern Florida, and we took only a few pieces of furniture — a favorite chair, a filing case, the TV, etc., plus dishes, books, cooking utensils and personal things, which in the end amounted to 2400 pounds.

We thought the estimated charge high, but when we calculated the cost of hiring help to load, the hazards of driving a do-it-yourself vehicle, trailer or other conveyance, plus the cost of someone to help unload, we decided to let commercial movers do the job. They did it so much more easily and efficiently than we ever could have!

For instance, they have dollies and a ramp. A "dolly" is a little platform on wheels that they use to get heavy things from here to there. When they arrived in Florida, there was only one man on the truck, and I thought my husband would have to help unload the heavy items. But I was mistaken — the driver said it was a small load and he could do it himself. He put that heavy filing case on a dolly, rolled it into the house and into the room where it was to repose in a corner beside the desk, and slid it off as if it were nothing!

As to the packing, let the movers do your dishes and breakables. First, they have the containers. Your corner grocer isn't going to be able to provide you with enough big cartons for the job, and if you pack them in barrels or boxes, think of the weight and inconvenience in handling.

Movers do it most efficiently. They come in with a big stack of paper a little heavier than newsprint and wrap everything, whether it is breakable or not. An article might jangle into something else that is breakable, so it gets wrapped.

Then they have sheets of corrugated paper to put between plates and saucers, which are again wrapped in stacks. They also roll each tumbler, sherbet glass, and cup in corrugated paper and then tuck in the paper tails. These are packed around the edges of the stacks of plates, etc. Our dishes came through with not a piece broken and without a chip or scratch. I feared for my big turkey platter, but I need not have.

Make Lists

No matter how much packing the movers do for you, there will be some small cartons to pack yourselves. Into these go miscellaneous things. Be sure to make a list of what goes into each carton, numbering carton and list to match. Then put the lists in the back of your purse and don't lose them.

When you are ready to unpack, you won't be frantically searching for something. It may be months before you want to unpack all the cartons, and in the meantime, you might want something very badly. We weren't smart; we only put general labels on the boxes and didn't make lists. Now we can't find our Christmas card list nor my husband's extra supply of letterheads!

Before the actual packing and moving, there is the "give-away" period. The house we had lived in for 22 years had a two-room attic and a three-room cellar. They were both full. Apparently the Thomases never threw away anything; we always saved it for the rainy day!

We had clothes that didn't fit, bedding we didn't need, papers we never looked at. All of these had to go. The library was glad to get four cartons of books; clothes went to a rummage sale, the Salvation Army profited by our move, and relatives came in for their share. I had to really steel myself to throw away some of my keepsakes!

We moved into a house with only a small utility room for storage, plus linen and clothes closets. We fit nicely now that we have had additional storage built for dishes and books, but at first it was a problem. Perhaps you will be lucky and move from a small place to a larger one, but most older couples move to a smaller house or to an apartment.

A Good Idea!

Before the movers came, I packed a large picnic basket with a few dishes and pieces of silver, one small skillet and some cooking tools, salt and pepper shakers, and just what I thought we'd need for a few days until the movers arrived. You might well do this, even if you're only moving to the other end of the farm. It saves digging the things out of the load when you want to get a meal.

When you unpack your things, take enough time to put them away thoughtfully. And be sure you check all the pockets of your suitcases! I stored our suitcases on an overhead closet shelf and then when I was dressing to go out, couldn't find a pair of earrings. Finally, with the aid of a stepladder, we hauled down the suitcases and sure enough, the earrings were in one of the pockets.

Last of all, remember it takes time to get used to a new place. Don't be surprised if you don't feel at home for three months. Go to church and get out as often as you can to meet people. If you belong to a federated club, arrange to have your membership transferred. The sooner you get acquainted with people, the sooner you'll feel you belong in your new home.

American Agriculturist, March, 1968

The AA Clothes Line

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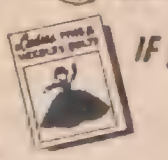
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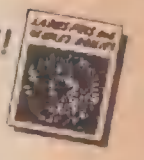


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Editor in Chief, **"Stitch 'n Sew"**

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Spring blossoming wild flowers can be just as lovely in a corner of your garden as these are in the woods.

Why not grow

SOME WILD FLOWERS

by Nenetzin R. White

We have discussed general landscaping many times, but have rarely touched on wild flower gardening. A corner of Grandma's garden usually contained some wild flowers, and so can yours. Many people moving to the country find wooded areas on their property. They keep these areas in their natural, lovely state and have ideal spots for growing wild flowers.

Normally the best places for a wild flower garden are shaded, reasonably moist areas, the fringes of a shaded area, or on the northern side of your home. The soil should contain natural woods dirt or peat moss, and a mulch will keep roots cool and make the garden comparatively weed-free.

One of the beauties of wild flowers is that they grow for many years with a minimum of care. At the northwest corner of our home, built about 1815 by my husband's family, is a delightful patch of jack-in-the-pulpit. These were planted so long ago that no one can remember when they weren't there. Still they flourish, and we, our children, and their friends have all enjoyed them. They serve as a ground cover under a large upright yew.

This is one way wild flowers are useful, and there are many that make good ground covers. A few of our more common Northeastern varieties are trailing arbutus, Dutchman's-breeches (related to bleeding heart, but yellow-white), checkerberry, partridge-berry, wild ginger, dog's-tooth violet, hepatica, bloodroot (now being sold as a cultivated plant), trillium, ferns, etc.

Some of these wild flowers can be transplanted from the woods, but many are protected by state conservation departments. Check to see which ones are protected in your State, so you won't break the law. There are specialized nurseries that grow the ones you can't transplant yourself, and they can sell them to you. Of course if any of these varieties grow on your own property, there is no problem.

Small shaded, moist areas can be planted to one or two adaptable plants. There are many bog-type wild flowers that will make pleasant additions to areas where it is difficult to grow other plants. Cowslips, moist woodland ferns, skunk cabbage (it's really pretty), some violets, mosses, etc., will answer the problem for very moist, shaded areas.

A Challenge!

A true wild flower garden that will have blossoms the year round is a little harder to achieve, but can be accomplished. Spring flowering plants are plentiful, and some of my favorites are the early hepaticas, violets, arbutus, and snowy white bloodroot. These are followed by trillium, jack-in-the-pulpit, and wild sweet William.



It's easy to recognize the dog's-tooth violet or adder's-tongue by its pretty yellow flowers and spotted leaves.

Some summer flowering wild plants are beardtongue, butterfly weed, musk mallow, lobelias, Turk's cap lily, Canada lily, and such. Taking us into fall are rose mallow, golden glow, cone flower, purple loosestrife, asters, gentians, and goldenrod (not one of the usual causes of hay fever as is commonly believed).

If you have a wooded area, you

(Continued on page 59)

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From now on, you will come across some patterns in your pattern feature that are changed in sizing measurements. This new sizing, developed and approved by the Measurement Standard Committee of the pattern industry, will correspond more closely to standard ready-to-wear sizes.

The bust measurement is the key to your correct pattern size for all garments, except of course for skirts and pants. If you wear a size 12 dress, you will probably now take a size 12 pattern (bust measurement 34 inches). With these new measurements, you will take a pattern one size smaller than before.

The bust measurement for the **"new"** patterns in your pattern feature will be stated in the description of the patterns so you can be sure of your pattern size. Waist measurement will guide you for skirts and pants.

The change in measurements affects only the size ranges for Junior Miss, Teens, Misses, Half Sizes, and Women's patterns. Size measurements for Children and Girls will be about the same.

Wild Flowers

(Continued from page 58)

can start right away planting wild flowers in peat or woods dirt, and then mulching later. If you have just a shaded area that you wish to convert, you should incorporate lots of peat moss or woods dirt into the soil.

As a very small child, I had a wild flower garden which was really lovely, and in almost constant blossom with its many varieties of plants. My father and I would go into the woods, and with a little help, I would dig my plants and proudly carry them home. I had to grow up to realize it was my father's burlap bag of woods dirt that made my plants grow!

Going for walks in the woods at different seasons of the year is one of the best ways to procure your wild flowers. And it's a pleasant way to improve your health as well as your garden! If wild flowers are in bloom and you are worried about their survival, mark the spot and transplant them during their dormant season. Propagation of wild flowers is much the same as for any perennial – by seeds, divisions, cuttings, layers, etc. Seeds seem to do well if planted (almost scattered) in similar conditions to where the plant was growing.

Following is a list of books that you may find helpful either in growing a few wild flowers or a full-fledged garden.

Wildflowers – How to know and enjoy them, by Samuel H. Gottscho.

Gray's Manual of Botany, Edit. 8, published by Fernald, Merritt & Lyndon. This is the most complete technical manual for this region.

Wild Flowers by Homer D. House.

Wild Flower Guide and Fern Guide by Edgar T. Wherry.

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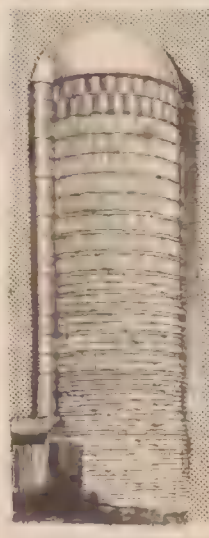
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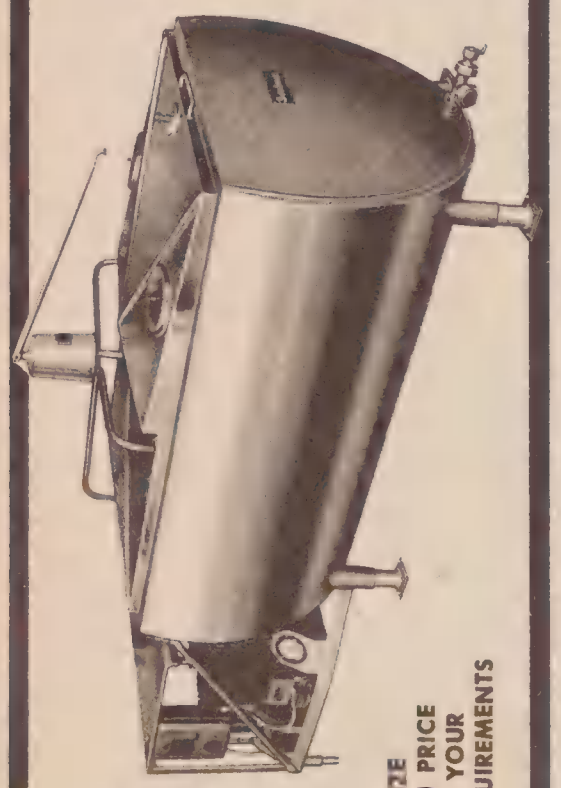
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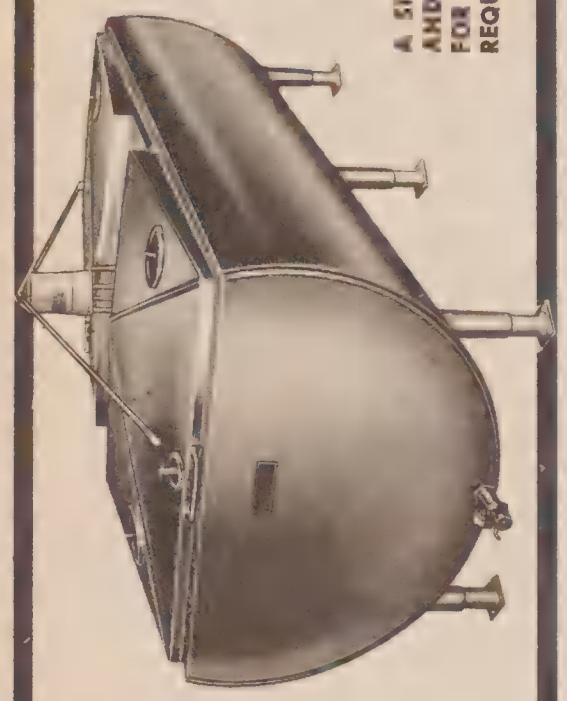
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For The Northeast Farmer

DEBT POOLING

"Last summer I made arrangements with a company in Rhode Island to consolidate all of our bills. We would pay the company $37.00 each week, which they would divide among our creditors. However, I began getting hectic creditor calls which are constant and very irritating. I have paid this company for five weeks, a total of $185.00, and the only payment they have made is one for $56.00 on our mortgage.

"As soon as I discovered they were not making regular payments on my bills, I wrote and requested they return my payment books and the balance owed me, minus a six-month cancellation charge of $39.00 as we originally agreed. I have had no answer to my letters and by now my bills are so far ahead of me I am trying desperately to catch up. Can you tell me what to do now?"

This is "debt-pooling," whereby these operators supposedly pro-rate the income of a debt-laden individual to his creditors for very high service and interest charges.

This scheme is now outlawed in 22 states, including New York and Rhode Island. However, the New York State law cannot protect a debtor who deals with out-of-state debt-pooling firms. And, in Rhode Island, we understand the statute permits debt-pooling operations with **non-residents** of Rhode Island.

Almost never is the plan carried to fruition. Either the creditors do not accept the plan or the debtor finds it impossible to live with.

Our only suggestion, should you be contacted by a debt-pooling promoter, is that, if you are a New York State resident, you contact the Bureau of Consumer Frauds, Office of the Attorney General, 80 Centre Street, New York City. Residents of other states should contact the Office of the Attorney General at their state capitals.

ADDRESSES WANTED

Oscar Loucks, formerly of Delmar, N.Y., in order to notify him of the 19th annual reunion of Co. A, 50th Eng. Bat: (C), which will be held July 27-28 by John F. Dodds, Lyman Rd., No. Rose, N.Y. 14516.

* * *

Minnie Brown, when last heard from was in Los Angeles, California.

* * *

Betty Wiebezahl, who formerly resided in Syracuse and Nunda, N.Y. Her married name may be Hallock and she may be living in or near Rochester, N.Y.

* * *

W. C. Scott, who lived in Corry, Pa. during the early 1920's.

* * *

Carl or Rose Ranshaw, who graduated from Barrytown High School in Michigan in 1922.

* * *

Descendants of Alvin Haskins of Greenfield, Mass., and of Horace Hunt and Joel Fish of North Prescott, Mass.

* * *

Mrs. Lester Bold, whose last known address was Gardner, Maine.

* * *

Miss Edna Bunkoska, formerly of Oakwood Avenue, East Aurora, N.Y.

The Song of the Lazy Farmer

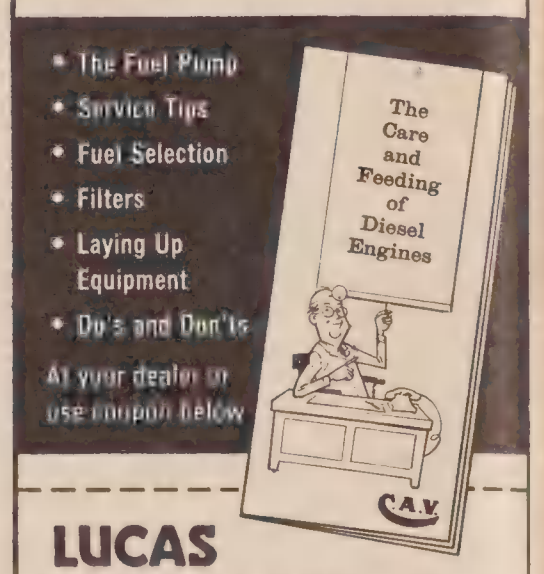
The days are dim in memory when we had no 'lectricity; sometimes it seems impossible that we could get along at all. In those days, chores were just a pain, you worked and never seemed to gain; but nowadays they're almost fun, you hardly start before you're done. You push a switch to grind the feed, no longer is there any need to carry water here and yon, instead you turn a faucet on. You do not stumble through the night, the juice floods ev'rything with light, it keeps the stock tank warm and nice so it won't cover up with ice.

I wish that I was young again so I'd still be around here when push-button farming comes in style and ev'ry farmer wears a smile. I'd set my big old rocking chair upon the porch and park right there; I wouldn't have a thing to do except to throw a switch or two. I'd press on button number one to make the tractor start to run; a push on number two, somehow,



would hitch the blame thing to the plow. On three she'd take off with a roar, I'd open gates with number four; fields would get plowed on number five, and I'd be glad I was alive.

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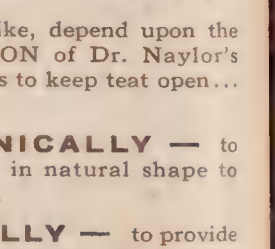
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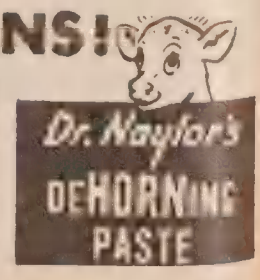
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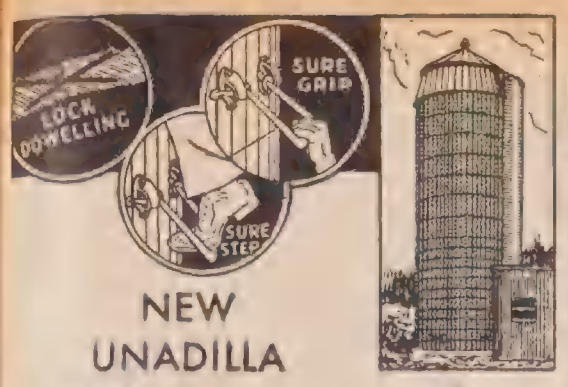
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Dates to Remember

March 4 - Annual meeting United Milk Producers' Cooperative Association of New Jersey, Far Hills Inn, near Somerville, N.J.

March 6 - New Hampshire Fruit Growers Association Annual Meeting, Highway Hotel, Concord, N.H.

March 6 - Annual New Hampshire Sheep Day, University of New Hampshire, Durham, N.H.

March 13-15 - Northeastern Aerial Application School for pilots and those interested in aerial application of pesticides, Alice Statler Hall, Cornell University, Ithaca, N.Y.

March 17-20 - National Farmers Union Annual Meeting, Leamington Hotel, Minneapolis, Minn.

March 18-23 - National Poison Prevention Week.

March 18-19 - Dwarf Fruit Tree Association Annual Meeting, Benton Harbor, Michigan.

March 19-21 - Annual New York Farm Electrification Council Conference, Cornell University, Ithaca, N.Y.

March 21 - Annual Agricultural Leaders' Forum, Cornell University, Ithaca, N.Y.

March 23 - Sheep Day, University of Massachusetts, Amherst, Mass.

March 26-28 - Swine Producers Short Course, Cornell University, Ithaca, N.Y.

March 27-29 - Maryland Nutrition Conference, Sheraton-Park Hotel, Washington, D. C.

March 28-29 - Annual Meeting of Northeast Dairy Cooperative Federation, Inc., Hotel Syracuse, Syracuse, N.Y.

March 31-April 2 - Delaware Conference on Food Distribution, University of Delaware, Newark, Del.

April 4-5 - Northeast Dairy Conference, Statler-Hilton Hotel, Baltimore, Maryland.

April 8 - Annual Meeting of New York State Guernsey Breeders' Co-op, Inc., Hotel Augustan, Cobleskill, N.Y.

April 8-12 - 17th Annual Cattle Reproduction and Artificial Insemination Short Course, University of Connecticut College of Agriculture, Storrs, Conn.

April 16 - New England Neppco Poultry Conference, Colonial Inn, Lynnfield, Mass.

April 16-18 - Swine Building Conference, for producers and building equipment and feed companies, The Pennsylvania State University, University Park, Pa.

April 20-26 - National 4-H Conference, Chicago, Ill.

April 22-23 - New England Neppco Poultry Conference, Yankee Drummer Inn, Auburn, Mass. (Exit 10, Massachusetts Turnpike).

Systemic insecticides are now being combined with some fertilizers to minimize farm labor. The combination feeds plants and at the same time protects them from many early-season insect pests with one pass across the field.

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ED EASTMAN'S PAGE

DAIRY SUCCESS WITHOUT CORN

Believing there is still hope for success and happiness on relatively small, one-man farms, I recently asked for letters giving the personal experience of those who have made a success on such small farms.

I have been agreeably surprised at the response. In the February issue I published one such letter here, and now here's another one:

"We were away from farming for eleven months when we decided that we would rather be back at it and bought this farm, where we have lived seven years. We have no silo therefore no corn. We have about 125 acres tillable, and grow hay and oats.

"Our dairy consists of forty milkers and thirty-four replacements in all age groups. These have all been raised since we came here in 1960 and are from artificially bred stock. The milkers averaged over 13,000 pounds last year and our labor cost was kept to hiring a high school student for haying. We . . . my husband and I . . . do the work the rest of the time.

You ask if one can make a go of farming without corn. I can say "Yes" truthfully. We put up 10,000 bales of hay a year, and start feeding hay at each milking in the barn about the 20th of June. The milkers are fed a good pellet ration of grain. Our barn is conventional and modern in respect to bulk tank, dumping station, gutter cleaner, and mow conveyer.

"Our family of three children are all married and away from home, so now we have time for auctions, antique shows, barbeques, and little trips as we adjust our work for a breather. We never have milkings off, but there are always a few free hours between chores.

"You asked for a short letter but I felt I couldn't explain in just a note the way we feel about corn. It's good feed, I grant you, but we have a good living without it. All we ask is that we have enough to pay our bills, keep up our many insurances, and keep our health, and we'll be happy. The farm we own and all our other treasures are ours through no gifts of others but from hard work and good fortune.

"I couldn't close without expressing my delight in your book 'Journey to Day Before Yesterday.' We like antiques and old things, and so many things in your book we remember or have heard of. We have lent it several times to our friends and they were happy to read it." *Mrs. L. R. R., Watertown, New York.*

If you want a copy of the book, write to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York 14850. The price is $5.95, plus 12 cents tax in New York State.

CRISIS IN EDUCATION

The first act of the New England settlers after they built their cabins was to put up a church . . . and their second was to build a schoolhouse. One leader gave as his reason, "Lest education be buried in the graves of our fathers." From that time to this, American fathers and mothers have been determined to give their children a better education than they themselves had had. For this reason more than any other, our democracy has grown and flourished.

But now we have come to an important cross-roads in education . . . a time of decision . . . and on that decision rests the educational welfare of our children for generations to come. We have reached a crisis in education, because taxation for our schools is fast reaching the limit that taxpayers can pay. As a father and mother of children, which would you rather have . . . well-qualified, well-paid teachers with well-equipped classrooms and laboratories, or what many people consider luxuries in education, as for example swimming pools and the most costly luxurious auditorium in town?

We are close to that kind of a decision, and unless the policy-makers and the administrators recognize this situation, there is danger that the taxpayer will rise in his wrath and cut off the money not only for what he considers luxuries but also many absolute necessities. That situation has already happened in some communities. More than ever before, school administrators must give careful thought not only to every cent they spend, but to whether or not they can make the necessity of spending it clear to the taxpayer.

In many communities there has been a woeful lack of communication between school boards and the public. And the public itself has been to blame for some of this situation by not attending school meetings where officials have presented the facts, involving sometimes millions of dollars.

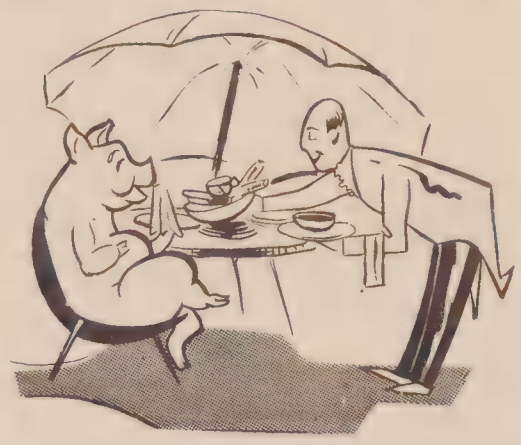
To protect our children immediate action must be taken:

(1) To keep the public constantly informed on all important moves through the newspapers, radio, and by personal contact between school officials and local leaders.

(2) To make every effort to get parents and other taxpayers out to school meetings.

(3) To be ready at the meetings to explain simply and clearly every important policy and transaction that has occurred during the past year, or is proposed for the coming year.

Unless such steps are taken, officials will have no one to blame but themselves for criticism, and for taxpayer actions that may limit the educational opportunity of the children.



"HIGH ON THE HOG"

As a matter of everyday practical philosophy, what adds more to the joy of living than to have a good appetite and the means to satisfy it? Rural people have a better opportunity for eating well than almost anyone else.

So it has always seemed to me too bad that so many farmers don't eat as well as they could. I refer to the fact that less and less farmers are growing gardens. If you add milk and fresh eggs to all the vegetables you can harvest fresh out of your garden, you have the foundation for eating "high on the hog."

Farmers have argued with me that they can buy their vegetables cheaper than they can grow them. I doubt this, and furthermore I am sure that there are very few vegetables that you can buy that can equal those fresh out of your own garden.

Many farmers hesitate to raise a garden because they make such hard work of it. Instead of an old weed patch surrounded by a fence (usually overgrown with weeds), the garden spot should be rotated frequently, and so laid out that much of the work can be done with the regular farm equipment.

While you are at it, why not brighten up the lives of your family and your own by planting some flowers, using some of the old stand-by varieties that are hardy and can be grown without much care?

YOUR MOST INTERESTING EXPERIENCE

In our great family of readers there must be many who have had thrilling experiences that would make very interesting reading. For example, have any of you seen a flying saucer, had narrow escapes, encounters with angry animals or been held up by robbers? If so, perhaps you would like to write me a short letter describing your experience.

Because my space on this page is very limited, the letter must be short, and will test your skill to describe a thrilling personal experience with few words. I am sorry that I will be unable to pay for such letters, but maybe you will think it worthwhile to write your experience for such a large audience. Address them to: E. R. Eastman, 515 N. Tioga Street, Ithaca, New York 14850

PAST AND PRESENT

'Twas really quite a while ago
When I was young and time moved slow,
When horses' hoofs, with rhythmic beat,
Were heard on country road and street.

But really I'd not want to go
Back to those days when time moved slow,
For there's great challenge in these days
For one who works and hopes and prays.

Margaret Reed Marcia

INCREASE YOUR HAY CROP

Nitrogen applied to grass lands in early spring, especially to legumes, usually pays big results. Ask your county agent or State College for directions.

EASTMAN'S CHESTNUT

I stole this one from the Skaneateles Rotary Newsletter, which named it "My Old Hen."

Hard work means nothing to her. She just keeps digging worms and shelling out eggs regardless of what bureacratic brainbusters and starry-eyed theorists say about the "rights" or the "outlook".

If the ground is hard, she scratches harder. If it's dry, she digs deeper. If it's wet, she moves to a dryer place. If she strikes a rock, she scratches around it. Most important, she keeps digging. If she gets a few more hours of daylight, she digs more worms and shells out more eggs.

Did you ever hear of a hen demanding more pay, shorter hours, more benefits, or a guaranteed wage? Did you ever hear of one cackling out a strike call for shorter hours and less work? Not a hen. She saves her energy for digging and her cackles for accomplishments — eggs. She knows that success comes from digging.

IF YOU HAVE A NEIGHBOR WHO OWNS AN...



M-C ROTARY SCYTHE

He'll tell you:

1. He's never made better hay
2. He's never made it faster or easier
3. How it picks up rain-soaked hay, fluffs and reconditions it without damage, reducing drying time from days to hours
4. His M-C Rotary Scythe is the toughest, strongest haymaking machine on the market
5. He wouldn't sell it for twice what he paid for it if he couldn't replace it.

The best advertisement for M-C Rotary Scythes is the machine itself. This simple, ruggedly built machine *mows, conditions* and *windrows in 1 operation* and it walks through the toughest stands of hybrid forage crops, leaving a perfectly conditioned windrow, fluffy and light for quick field drying. Made in 6', 7' and 10' widths.

IF YOUR NEIGHBOR ISN'T LUCKY ENOUGH TO OWN AN M-C ROTARY SCYTHE

... why not write for this

FREE CATALOG

and get complete details today?



Iron Horse Quality
M-C FARM EQUIPMENT

THE MATHEWS COMPANY
DEPT. 38R ▪ CRYSTAL LAKE, ILLINOIS 60014

SERVICE BUREAU

For The Northeast Farmer

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Miss Donna Eckler, Rochester — $14.78
(refund on shoes)

Mr. Byron E. Liddon, Little Falls — 30.00
(damage settlement)

Mrs. Margaret Munz, Edmeston — 11.66
(refund on dress)

Mr. Tyler M. Lamb, Deansboro — 4.74
(refund on order)

Mr. Lee E. Davis, Putnam Station — 1,693.00
(payment for hay)

Mrs. Arthur Brewer, Woodhull — 10.65
(refund on pictures)

Mr. John Hauslauer, Leicester — 50.00
(payment on hay)

PENNSYLVANIA

Mrs. Elizabeth Lee, Union Dale — 2.00
(refund on order)

NEW HAMPSHIRE

Mrs. Millard C. Cook, Claremont — 67.20
(payment for nursing)

Mr. Francis C. Lively, Fitzwilliam Depot — 349.28
(insurance settlement)

DIRECTORY BILLING

"In your December issue I read the article about the so-called classified advertising bills, and today I received one in the mail. I sent the card that was enclosed to the Postal Inspector in Hollywood as you advised.

"Many thanks again for your great service. It may interest you to know that my son, who takes your magazine, makes the 4th generation."

Since we printed this item our reader mentions, we have received not only letters from subscribers who received such bills, but also notices from associations whose membership had been solicited by these "directory advertisers." The invoice-like solicitation, punched like IBM cards, fooled some of the members into believing it was a bill from the association.

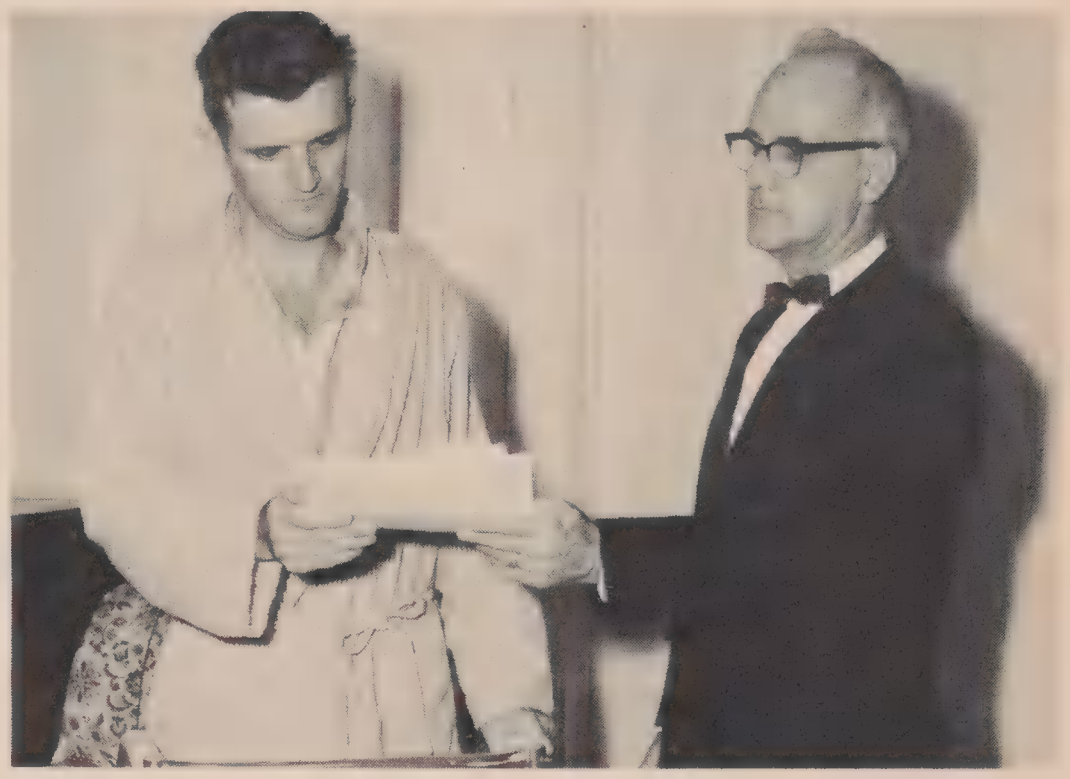
There are apparently a number of out-of-state companies that continue to solicit for advertising in their classified directories, and some firms may pay the invoice under the false impression they are renewing local yellow-page advertising.

The N.Y.S. Bureau of Consumer Frauds and Protection is cooperating with postal authorities who are investigating these schemes. Postmaster General O'Brien has said that promoters of phony business directories will find 1968 a rougher year than 1967. An amendment to the Postal Act declares that solicitations in the guise of bills or statements of account are non-mailable unless they contain on their face in large and conspicuous type the following notice: (effective March 15) "This is a solicitation for the order of goods and/or services and not a bill, invoice, or statement of account due. You are not under obligation to make any payments on account of this offer unless you accept this offer."

If you receive a solicitation — like a bill — which does not carry this warning, send it along with its envelope to the Chief Inspector, Post Office Department, Washington, D.C. 20260.

Caught In Unloading Wagon Spends 75 Days In Hospital

Mr. Carroll was sweeping the remaining wheat out of a self unloading wagon as he had done many times before. The travelling bed was off but the beaters still running—suddenly a beater arm caught his shirt sleeve. Before he knew it he was wound up in the machinery. His father was nearby and quickly cut off the power. Even so, Mr. Carroll suffered fractures of hip, pelvis and ribs also a severely gashed back.



Francis V. Carroll, Pompey, N.Y. received $1850.00 from local agent Charles Heath of Cazenovia, N.Y. This is Mr. Carroll's letter of thanks— **"I want to say thanks for my checks totalling $1850.00. Having spent 75 days in the hospital with my bills running nearly $5,000.00. I am certainly in need of these benefits. When you go through what I have you realize you never have enough insurance. I am thankful I had several North American policies. I started two policies ten years ago and added two more since. You have my recommendation."**

Francis V Carroll

OTHER BENEFITS PAID

Roger Daley, Fillmore, N.Y. — $1287.02
Auto accident—broke knee

Louis Micha, Johnson City, N.Y. — 250.09
Fell off wagon—broke collarbone

Paul Hebner, Cattaraugus, N.Y. — 819.07
Crushed by tractor—inj. arm, shoulder

Ernest Carls, Allegany, N.Y. — 269.78
Gored by cow—broken ribs

Herbert Hall, Sterling, N.Y. — 274.34
Caught in hay elevator—inj. hand

David Rowland, Genoa, N.Y. — 1299.28
Auto accident—head injuries

Edna Faulkner, Sinclairville, N.Y. — 124.29
Slipped on ice—inj. head, shoulder

Gladys Mays, Falconer, N.Y. — 1323.58
Fell down steps—broke hip

William Parker, Lowman, N.Y. — 105.72
Kicked by cow—injured knee

Homer Rabideau, Mooers Forks, N.Y. — 875.11
Stepped on stone—inj. knee

Howard R. Keller, Marathon, N.Y. — 1233.15
Slipped off tractor—inj. shoulder

Walter Hall, Treadwell, N.Y. — 775.50
Using power jointer—injured hand

Donald R. Schmitz, No. Collins, N.Y. — 545.07
Fell from bike—broke leg

Donald Hughey, Springville, N.Y. — 1386.09
Gored by bull—broke ribs

Linda Ann Baker, Clarence Center, N.Y. — 1363.56
Fell from horse—broke leg

Paul Duffok, Johnstown, N.Y. — 1012.21
Auto accident—inj. head and chest

Charles Cook, Batavia, N.Y. — 682.69
Caught in self-unloading wagon—inj. hand

Bert Amend, Corfu, N.Y. — 362.12
Fell—inj. knee

Gottlieb Marti, Adams, N.Y. — 875.37
Caught in spreader—inj. chest, head, arm

Maurice Forkey, Cape Vincent, N.Y. — 806.70
Skiing accident—inj. back

Cynthia Allen, Lowville, N.Y. — 532.84
Crowded by cow—inj. chest

Barbara Tabolt, Lowville, N.Y. — 662.81
Auto accident—broke foot

William Stoffle, Turin, N.Y. — 319.44
Caught in silo auger—inj. foot

Charles Rodman, Earlville, N.Y. — 243.71
Cranking motor—broke wrist

Charles Breslawski, Hamlin, N.Y. — 1383.13
Thrown from tractor—multiple injuries

Lloyd O'Brien, Rochester, N.Y. — 110.00
Hit by hay bale—inj. neck

Walter Masi, St. Johnsville, N.Y. — 335.50
Fell from ladder—broke heel

Allen Rickard, Jordan, N.Y. — 450.00
Struck by ram—injured back

Robert J. Frazee, Fabius, N.Y. — 803.63
Playing soccer—broke ankle

Arthur Herendeen, Macedon, N.Y. — 270.35
Fell on ice—broke wrist

William Purdy, Sr., Middletown, N.Y. — $ 116.43
Fell off harvester—inj. chest

Calvin Nesbitt, Albion, N.Y. — 865.68
Thrown from tractor—broke foot, arm

Myrtle A. Avery, Central Square, N.Y. — 195.72
Fell on ice—broke wrist

Clarence Williams, Berlin, N.Y. — 180.14
Knocked off snow plow—multiple injuries

James Alexander Morrison, DeKalb, N.Y. — 303.45
Inflating basketball—swallowed needle valve

Charlotte B. Flight, Heuvelton, N.Y. — 1092.14
Slipped fell—broke hip

Lola Lucas, Fort Jackson, N.Y. — 317.13
Fell from snowmobile—broke collarbone

Virgil Winnie, Sharon Springs, N.Y. — 479.00
Thrown from tractor—inj. neck, shoulder

Robert P. Warner, Interlaken, N.Y. — 1334.28
Caught in power take off—inj. thigh

Walter L. Billings, Prattsburg, N.Y. — 860.63
Tire blew up—inj. face and chest

Elwood Rude, Woodhull, N.Y. — 1265.00
Caught in pulley—inj. arm and hand

Beverly Wright, Campbell, N.Y. — 1326.43
Fell downstairs—broke hip

Dietrich Koester, Cochecton, N.Y. — 177.14
Fell from spreader—broke wrist

Henry Vanderweert, Richford, N.Y. — 878.94
Hit by hay bale—inj. knee

Florence D. Bell, Barton, N.Y. — 1196.50
Fell from step ladder—broke ankle

Sibley Stewart, Dryden, N.Y. — 1098.52
Pushed over by cow—inj. knee

Clyde Pettit, Williamson, N.Y. — 591.08
Slipped off tractor—multiple cuts

Verne Sergeant, Sodus, N.Y. — 293.28
Fell on ice—broke shoulder

Romanzo Brown, Jr., Perry, N.Y. — 104.28
Knocked down by heifer—broke ribs

Robert Raker, Liberty, Pa. — 475.12
Truck hit by auto—broke collarbone

Jacob Schneider, Morris, Pa. — 1207.85
Caught in corn picker—inj. hand

Paul McArthur, Conneautville, Pa. — 261.42
Dragged by heifer—injured knee

Loretta Danyluk, Great Meadows, N.J. — 655.00
Thrown from truck—inj. back

Joseph Tyndale, Trenton, N.J. — 1301.42
Starting truck motor—burns head and chest

R. George Preidel, Bordentown, N.J. — 240.00
Jack slipped spreader fell—inj. foot

Paul Rewa, S. Deerfield, Mass. — 523.00
Auto accident—injured back

Guy Nealry, Hampden Highlands, Maine — 162.85
Slipped fell—inj. shoulder

John Solarz, Winchester, N.H. — 275.00
Fell from hay mow—multiple cuts and bruises

Margaret K. Angier, Windsor, Vt. — 1617.12
Trampled by yearling colt—broke arm

Viola Ferguson, Springfield, Vt. — 962.95
Fell downstairs—inj. knee and back

Keep Your Policies Renewed

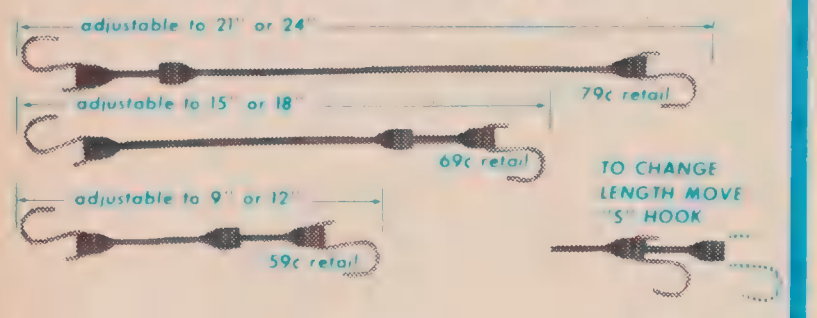
NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)

NORTH AMERICAN COMPANY
FOR LIFE AND HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING — ITHACA, NEW YORK

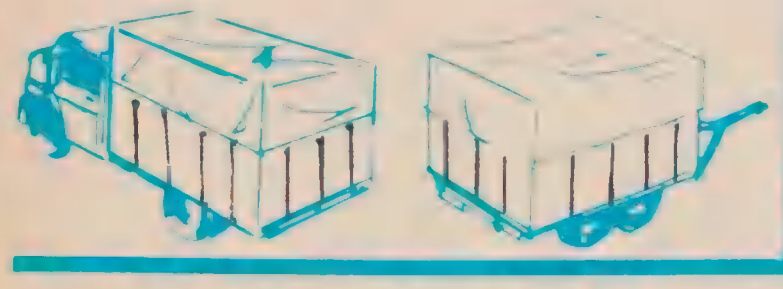
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ADJUSTABLE TARP & TRUNK FASTENERS



Maes adjustable tarp fasteners are very handy for fastening down tarpaulins on stock trucks, pick-ups, grain trucks, stacks of baled hay, construction, fertilizer spreaders, etc.

Made of high quality flexible rubber which does not stretch out of shape. Sold complete with "S" hooks. Unique adjustable feature enables you to change length of fastener in seconds.



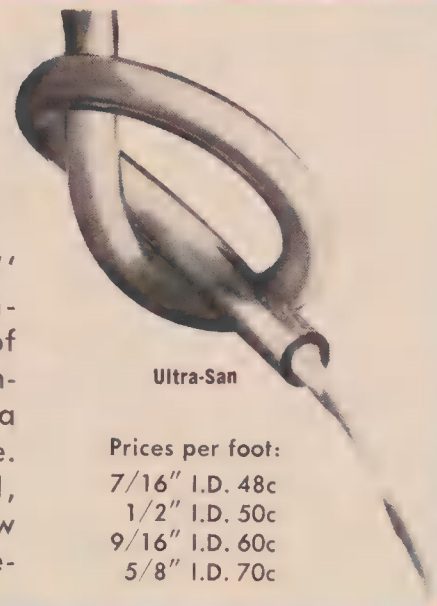


NEW!
DO-IT-YOURSELF PULSATOR REPAIR KIT FOR SURGE MILKERS.

Save approximately $3.30 per milker by repairing your own Pulsators . . . Complete 16 Piece Kit Only $1.70. See your Maes Dealer today for this "MONEY SAVER."

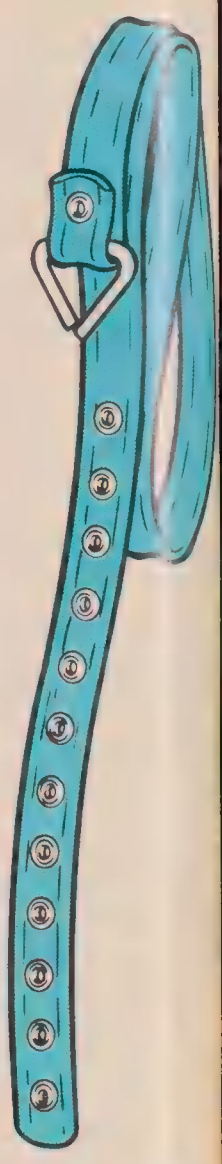
ULTRA-SAN CLEAR PLASTIC TUBING

Maes "Ultra-San" plastic tubing combines the pliability of rubber with the cleanliness of plastic at a very reasonable price. Exceeds all local, state, F.D.A. and new 3A Sanitary requirements.



Prices per foot:
7/16" I.D. 48c
1/2" I.D. 50c
9/16" I.D. 60c
5/8" I.D. 70c

NEW SURCINGLE STRAP



The new Maes Surcingle Strap is a large improvement over any other strap on the market. It has no rough outer edges which become frayed, torn or collect dirt. Can be cleaned up easily. Made of a unique new flexible plastic which is tough yet *flexible at low temperatures.*

Supplied complete with zinc plated triangle — ready to use. All grommets are genuine brass. Ruggedly constructed to withstand the most severe abuse and years of hard daily service. Ideal for use on all suspended buckets and many pipeline milkers.

ONLY $3.35

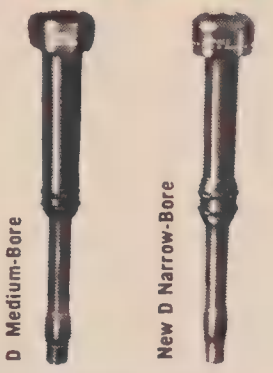


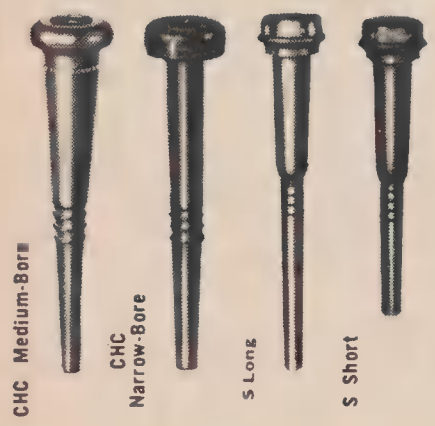
SURGE

Maes Inflations for Surge are used by over 75,000 dairymen. Maes are much more pliable, easier on the cow and far faster milking. Maes extra pliable rubber eliminates the need for narrow-bore shells. Tens of thousands of successful dairymen use Maes narrow-bores in their standard size Surge shell. Only .85c each.

DELAVAL

Here's your answer to fast milking. You save considerable time and aggravation because Maes inflations for DeLaval don't "suck air" or "fall off" during milking. No new claws, pulsators or shells needed to use Maes narrow-bore. Very soft, pliable, high quality rubber. Much easier to keep clean. Only .95c each.





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Bring your milker up-to-date by using Maes inflations. Much faster, cleaner milking. Maes soft, pliable rubber will pleasantly surprise you. For use in 6" shells only and with 13" to 15" of vacuum. Only .95c each.

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Available for long or short tube milkers. Will not fall off or creep. Cuts your milking time. Only .95c each.

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Style U Medium and UO Narrow-Bore will do a splendid job of milking in the Larger Universal Shell #20. Style U Narrow-Bore milks superbly in the Universal 2MS Shell, Jamesway and others. .95c each

DARI-KOOL BOU-MATIC

A much more practical product. Milks fast and gently. No sleeves or other complications. A far better product — for less money. Only .95c each.



SEE YOUR Maes DEALER TODAY — If none near order direct.

Please send me _____ Maes Inflations at .85c each or _____ at .95c each. If ordering direct, send list of other Maes products you want to buy. Add .50c shipping charges on orders less than $10.00.

Name _____

RFD or Box _____ City _____

County _____ State _____ Zip _____

☐ Please send me your free Supply Catalog on inflations for all makes of milkers.

☐ Please send me name of Maes Dealer in my county.

PLEASE CHECK
☐ Narrow-Bore inflations
☐ Medium-Bore inflations

☐ Suspended Pail
☐ Floor Pail
☐ Pipeline
☐ Milking Parlor

☐ I use Small Shells
☐ I use Regular Shells

☐ Bou-Matic 95c EA.
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For The
Northeast
Farmer

APRIL 1968

American Agriculturist

and the

RURAL NEW YORKER

Here's what gives this forage harvester its big cutting edge!



And because it's New Holland, you know the '717' will fine-chop forage season after season!

Hard to beat. Here's a forage harvester that's hard to beat when it comes to making haylage!

First of all, because the New Holland Model 717 has an extra-strong cylinder cutterhead. Each blade is backed full-length by a sturdy, steel plate to minimize damage from foreign objects. The main shaft itself has been reinforced to add extra strength for tough cutting.

Reason number two: the pickup attachment. It's New Holland's exclusive *Super-Sweep* pickup. It contains 60 closely-spaced teeth. Short hay that once got *passed* up now gets *picked* up.

There's a lot more you'll like about the "717". Such as the built-in knife sharpener that lets you restore a factory-sharp edge on the blades—right in the field.

Extra-fine cut. With nine knives, you'll fine-cut material to 3/16-inch. Without a screen. And without the higher horsepower requirements and lower capacity that go hand in hand with a screen.

The one thing we haven't mentioned is the surprisingly low price. We'll let your New Holland dealer tell you that himself.

New Holland Division
of Sperry Rand
Corporation.

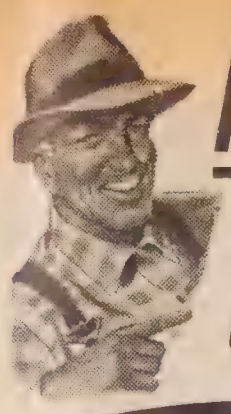
NEED A FORAGE BLOWER?
Ask about New Holland's Model 26 Super-Lift Blower especially designed to handle haylage. You'll whoosh almost a ton a minute into highest silos.

Ideal pair: Model 717 Forage Harvester and Model 6 Crop-Carrier.



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Practical in design • dependable in actio



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MADISON SILOS



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- Feed nutritious silage for more milk, more meat, more profit
- More than 60,000 Madison Silos in use

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Charles Weaver

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Since 1911

Cleveland, Ohio Walcott, Iowa

For The Northeast Farmer

American Agriculturist and the RURAL NEW YORKER

Vol. 165, No. 3

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Advertising Representative,
The Katz Agency

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OUR COVER

This scene is on the Bernardston Road near Greenfield, Massachusetts. Photo: Herbert Shumway



Iowa farm markets 3,000 hogs per year from 40- x 252-ft. RIGID-RIB® building

Henry Clark and Sons of LeClaire, Iowa, decided a few years back to update and expand their hog marketing operations. A colorful new 40- x 252-foot building constructed with Republic prepainted RIGID-RIB galvanized steel roofing and siding was built in 1967 to help get the job done. For summer comfort, good looks, and low maintenance, white roofing and turquoise siding were used.

Known as the Northco "Lean Pork Producing System," the efficient new building and equipment make it possible to produce higher quality hogs, market them year-around, make better use of farm-grown products, and use less labor.

Contractor for the building was Lumber Services, Inc., of Mason City. Vice President Art Nixa says they used Republic RIGID-RIB because the wider, longer, stronger sheets go up fast, cover more area, and hold tight.

Isn't it time you took another look at *your* hog operation? How about your dairy barn? Grain storage? Machinery shed?

Chances are your dealer or contractor can show you how a new building with Republic RIGID-RIB galvanized steel roofing and siding – prepainted or unpainted – can make your farm operation more profitable. Team up with *your* Agway store or representative – and get a better building.

Steel

You Can Take the Pulse of Progress at

REPUBLIC STEEL

CLEVELAND, OHIO 44101

EDITORIALS



by GORDON CONKLIN

ELEVENTH COMMANDMENT

I've been enjoying a considerable response to my editorial gently chiding the folks of New Hampshire about depending so heavily on real estate taxes as a source of their state's public revenue, and for imposing a head tax year after year. At least two editors in the Granite State press chose to publish a broadside against my line of reasoning . . . and I'm grateful for all that unexpected publicity!

First of all, most everybody climbed all over my mistake in saying that the New Hampshire head tax was begun in 1967 . . . an error resulting from accepting (without checking) some material sent me by the Tax Foundation, Inc. But the thing I chuckled about most was that the folks who wrote me so testily then proceeded to differ all over the map regarding just when the head tax actually was first imposed in New Hampshire . . . ranging all the way from "just after World War II" up to 1955.

You know, we all seize upon some hole in an opposing argument, and then assume we have sunk the entire ship because we've spotted a porthole . . . my wife is a master at this, by the way! Actually, the date of the head tax imposition is irrelevant to the real issue . . . which is the desirability of primary dependence on the real estate tax.

Richard Noyes, publisher of the Hillsborough Messenger, strove manfully to prove that "real estate taxes in New Hampshire are going down" . . . although admitting that "the money collected from the property tax has been going up." The reason, he reports, is that the tax base (or total full value) has been increasing so fast. We had a fine correspondence, by the way, and he made his points thoughtfully.

Well, statistics can be used to prove most anything . . . but in the comments just cited it should be remembered that the rise in the market (or "true") value of real estate is largely a result of inflation, and therefore to the average property owner is merely paper profit, not realized until the property is sold. His annual property taxes, though, have been rising . . . and have to be paid from actual earnings.

USDA figures for 1965 show that farm real estate in New Hampshire was being taxed at $2.16 per $100 of full value, compared with a Northeast average of $1.66, and a U.S. average of $1.02. In all fairness, though, it should be pointed out that the New Hampshire figure was not the highest one in the Northeast . . . Maine at $2.52 having that dubious distinction.

Perspective is a handy thing when involved in any controversy. I recall that folks from New Jersey sent me a similar flood of letters a few years ago when I wrote a similar editorial about a similar situation in the Garden State. The hue and cry faded . . . and New Jersey broadened its tax base soon afterward as it inevitably had to do. New Hampshire then was left as the only state in step with the times, and all the other 49 out of step!

My comments, of course, fly in the face of the Eleventh Commandment for editors, "Thou shalt not even appear to promote any new tax program, for the people know too well already the valley of the shadow of death and taxes."

But my files contain many comments by tax experts concluding that primary reliance on the real estate tax for state funds is an unjust and inadequate system . . . likely to be particularly unjust to farm people who own so many acres. My point in raising the question is not to promote a larger total tax, but to encourage a broadly-based tax mix that is more correlated with ability to pay, and less "regressive," as experts label heavy real estate levies. A person's wealth was once highly correlated with the value of real estate he owned, but this is no longer true.

Head bloodied but unbowed, I stand before the judgment seat and knowingly break, on behalf of farmers in New Hampshire, that Eleventh Commandment!

RICH KID

Visited a farm family the other day and observed a 12-year-old boy in patched bluejeans.

He was busy doing chores . . . accumulating the iron in his backbone that will make his future years more abundant than will gold in his palm. When the chips are down and the moment of truth has come, he will be true to himself and to the best that he knows.

His family is a closely-knit one . . . pouring day by day a solid foundation upon which to build the more stately mansions of his unfolding self. Amidst the riptides of future years, among the defeats and heartbreak sure to come, this firm support fashioned by mutual respect will never crumble.

He was surrounded by blue sky, rolling meadows, animals, equipment . . . all inviting his curiosity and exploration. Wherever he goes, the broad spectrum of things he has learned on the farm will help make life challenging, interesting, more worthwhile.

Even death, that ultimate fear of most of mankind, will be less mysterious to this boy who has already become attuned to the inexorable procession of birth and death, the rolling seasons, and the natural laws of growth. He is short on theology, but his faith in an honest and compassionate Creator has grown quietly day by passing day.

As I left that evening, the boy was staring in open-mouthed wonder at the flaming gyrations of the Northern Lights, hung like luminous curtains across the sky.

Of money he has little, but of value he has much.

BARGAINING POWER

Farmers have an easily-provable case that they have not shared in the nation's prosperity to the same extent as many other occupational groups. Over the years, it's been my privilege to sit in on many a confab where farmers discussed how best to go about gaining more bargaining power to overcome this disparity.

At such meetings, there are two fundamental facts of life that are almost never mentioned. The first is that the unassailable bastion of the family farm is the fact that **most farmers are willing to work for less at running their own business than what they would demand to do the same job for someone else.**

"Corporate agriculture" . . . the potential biological manufacturing complex . . . finds it extremely difficult to make a profit in competition with a family-farm type of agriculture, where the flexibilities of the family labor force in rush periods don't come at the price of time-and-a-half or double-time wage rates. Ironically, though, if the farmer ever achieves complete equality of pay scale with, say, the UAW members . . . then the days of the family farm are numbered. For then corporate food-producing giants could be formed that would compete on an equal labor-cost basis.

The second fact of life is that freedom is not free. Some farmers naively dream of achieving the bargaining power of a monolithic power structure like that possessed by Reuther's Under Authority of Walter members . . . and at the same time enjoy the traditional farmer freedom to do as they darn please.

Now, it may be that the majority of farmers really value their freedom of action more highly than they do economic "equality" with their neighbors. If so, I certainly respect that point of view . . . and will look ahead to (hopefully) 25 more years of listening to the same discussion of how to gain more farmer bargaining power. But if farmers truly want lots of hard-nosed bargaining power, then they should realistically be prepared to give up a measure of their freedom of choice . . . to some bargaining unit, to a cooperative, to government, or to some combination of these paths to collective action.

REQUIEM

The scene is the strategy room of the British High Command in London . . . the year 1778.

A general is speaking, "If we let those ragamuffin Yankee Doodles beat us . . . the greatest military power in the world . . . then the rest of our colonies will go like dominoes . . . Canada, the West Indies . . ."

"Don't get so excited, old chap," harumphed an admiral. "Our bombardment of coastal cities will win the war . . . no need to dig 'em out with the bayonet and all that."

"If only the king would get off this gradual escalation nonsense," groaned another general. "Everyone knows . . . at least they've been told often enough . . . that the kill-ratio is in our favor 10 to 1, but we need more men to match their dwindling numbers!"

"Do you suppose," mused a junior officer, "that we should consider the possibility of ceasing to police the world . . . and let the Y.D.'s work out their own destiny? Maybe the job of running the world will become too much for us."

With a gasp of horror, the assemblage turned as one man upon the upstart, and the ranking general roared, "If it weren't for your fine record, I'd have you court-martialed for treason!

"I'll have you know that the sun will never set on the British flag! Policing the world become too much for us, indeed! Why, the British pound and the British flag will be symbols of a lion's strength for a thousand years!"

Time passes, and the lion now lies down tiredly like a lamb . . . and Great Britain joins that long list of broken empires in the discard bin of history. Greece, Rome, Assyria, Egypt, Spain . . . the trumpets herald them no more.

And these United States . . . what of us? When will arrive our time to come down because of unresolved conflict within, and enormous overcommitments outside?

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High-capacity cutter head fine-chops to 7/64 inch—needs no recutter or blower

Simple, rugged, reliable cutter head design—the basic reason why International forage harvesters fine-chop up to 80 tons of corn per hour. Cutting action is so powerful that no horsepower-robbing recutting screens or blowers are needed.

Tough as they come, this husky cutter head has six ¼-inch steel rotor plates keyed to the shaft. Nine knives, not the usual six, are directly bolted to the plates to stay in precise alignment. Knives make 9000 sure cuts per minute—7/64 inch with an optional sprocket—13/64 inch with the standard sprocket. Knives and the reversible shear bar are tungsten carbide hardened to stay sharp longer, resist breakage. You easily hone the knives to a razor edge on the built-in power sharpener.

And a new feeding system on the 550 harvester features steel drum upper rolls with overlapping saw teeth—to effectively strip material and prevent roll wrap. See your dealer for all the worth-more features of the 350 or 550 forage harvester with cutter bars, windrow pickups and corn heads for wide or narrow rows. His IHCC financing is as flexible as you could want.



550 forage harvester—capacity up to 80 tons of corn per hour 350 capacity to 40 tons per hour.

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Personal Farm Experience

HIGH SILAGE

Elmer Towne of Montpelier, Vermont, served at one time as Commissioner of Agriculture for the Green Mountain State. Presently, he works for the Hood Foundation on bettering the dairy industry of New England, but has time for a keen interest in the home farm now operated by his son.

The Townes have used a high-silage roughage ration for five years, with hay fed perhaps once a week to their 130 head of cattle (65 milkers). Corn silage is stored in a bunker silo, and hay-crop silage in tower silos.

"We'd never build an upright silo for corn silage again," says Elmer. "We think a bunker is the way to handle corn silage fast and cheap."

On river bottom flats, the Townes hit 25 tons of corn silage per acre . . . making high levels of corn silage feeding a different ball game than if yields were down around 10 to 12 tons per acre.

Urea is used in the grain ration, but not so far in silage. The bunker silo is filled with dump trucks rather than a blower, so mixing urea thoroughly with silage would be difficult.

Elmer reports no unusual problems of large dimension developing from the nearly all-silage roughage program, but comments that cattle have a tendency to get too fat on liberal corn silage feeding. He also believes the cows have a tendency toward a bit more trouble with acetonemia and ketosis than they did on the conventional hay-silage ration. Glucose is put into the feed of "problem" cows before calving.

A commercial mineralized salt is fed, but no other special mineral or vitamin supplement is used. — *GLC*

PLANNING A BARN

Why did I build a new barn is a question often asked by visitors to our farm.

There were numerous reasons for making a change, some of which were economic and others were personal preference.

Before we built, we had a cinder block barn built during World War II for fifty head and some calves, plus two small pen barns for youngstock. These units had served us fairly well for twenty-odd years with some limitations. It was these limitations that caused us to look into some form of building program.

In the old stanchion barn the stalls were too narrow, the platforms short for large Holsteins, giving us a real problem with injuries. The cows faced out, and as we switched to more silage feeding we were spending more and more time shoveling out of feed carts. Three lines of stanchions in an "L" shaped arrangement did not lend itself to a pipeline installation. Due to placement of silos, other buildings, and a town road, it was practically impossible to add onto the existing structure.

About eight years ago I started looking into plans to incorporate the old structure into a new loose housing setup. I talked with a private engineering firm that had designed some pen stables in New England incorporating mid-western group handling ideas. This plan would have converted my old barn to a feeding shed; then we were to build a large pole loafing shed and milking parlor and pave with concrete an area of about 20,000 square feet.

At this time, many people, including the farm magazines and extension personnel, were raising the question of bedding needs in pen stables. Also, what to do with the snow in paved, uncovered areas.

Inasmuch as I still had doubts as to the workability of pen stables, we did not build. However, we did convert to outdoor feeding eight months of the year by building a wooden feed bunk and hot-topping a small barnyard. This solved most of our feeding problems . . . but still we had the other limitations.

Once again I talked with farm engineering people. This time I met with the men from the College, a group of men from a cooperative, and farm engineers from a private concern. To all of these engineers I stressed the idea of increasing the herd size, better milking procedures, cow comfort, and using my existing structure as a base unit to work from.

Built New

All of the farm advisors frowned on using the old barn in connection with a new setup. The cooperative pursued rebuilding to the fullest, and they felt that remodeling would be an uneconomical approach. I did not find it very pleasant to have engineers tell me that my old barn did not have much value in new planning, but as it has worked out, their decision was the correct one.

I felt that the best way to decide was to go and see for myself what others were doing. By talking with farmers who had made the change from stanchions to free stalls, I was able to decide more fully what I should do.

We traveled to Connecticut and saw some good operations, but in most cases I felt our climate was more severe than eastern Connecticut. To find out how they were operating in a colder area, we went to New Hampshire

LOR

For weed-free Corn

The combination of Du Pont "Lorox" plus Atrazine gives you the best annual weed and grass control for corn...while minimizing the carry-over problem. "Lorox" is known for its favorable rate of disappearance from the soil as well as for its superior ability to control a wide range of weeds and grasses. Atrazine is known for the manner in which it is tolerated by corn.

Last season, "Lorox" plus Atrazine was used by thousands of corn growers with excellent results. This year, why don't you profit from better weed control? Put the best of two great herbicides to work for you—spray the combination of "Lorox" plus Atrazine. Mix them yourself or buy a ready-mixed formulation of the two—look for the bag containing linuron. *"Lorox" is Du Pont's trademark for 50% linuron weed killer.

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and Maine. Here we found both warm and cold free stall systems operating very well.

After spending eight years of talking, reading and looking, we finally made our decision in the early fall of 1966. We broke ground for a new 100-cow, free stall barn disconnected from the old stable. It is a totally-covered cold system enclosed on three sides. The open side faces to the south. It is 256 feet long, 46 feet wide and has a feed bunk running along the open wall, a hay rack in the middle, two rows of free stalls away from the feeding area. We have two pens, a holding area, a double-four herringbone milking parlor, and a milkroom and utility room on the east end.

The cows have now been in their new home for almost a year. I cannot say that this new system has eliminated all the problems of dairy farming. By building the new barn we did, however, accomplish the following improvements:

1. Better milking in the parlor, for man and cow.
2. Improved cow comfort.
3. Room for expansion.
4. More efficient feeding.
5. Elimination of machinery breakdowns.
6. Flexibility of work schedules.

I am glad that I took as much time as I did in planning.

– Kendall Crocker, Jewell Hill Farm, Ashby, Massachusetts

ANIMAL HOSPITAL

My large-animal hospital at Randolph, New York, has been in operation for about a year now.

My territory covers sections of Chautauqua and Cattaraugus Counties (excellent dairy area) of Western New York. To my knowledge, this is the only large-animal hospital in this section of New York State.

As with most veterinarians, I have always had a small-animal hospital, but since my practice is 85 percent large-animal, my dream always had been to have a large-animal hospital. So after doing surgery in cold and inadequately-lighted barns and with makeshift surgical technique for 15 years, I finally went to work on this project.

My facilities are so I may do any type of surgery needed on cows and horses. Dairymen bring their animals in from my territory that need surgery or hospitalization, and I also have had several referral cases from other veterinarians.

The most common cow operations are "hardware" and "displaced abomasum" (displaced stomach). I usually keep a cow 5 days or less after surgery, so that she is on full feed before she is sent home.

The pleasure-horse population has grown fast in the last couple years. My patients consist of these, along with a great number of trotters and pacers. I do a lot of blood work along with the major trouble of leg conditions.

My hospital is equipped with 5 cow and 6 horse stalls; also an operating table for large animals, metal stocks, and an x-ray machine for use on my horse patients.

– Dr. Richard Draudt, D.V.M., Randolph, New York

NEW BARN

Erton Sipher of Gouverneur, New York, built a new 158×70-feet free-stall barn with 101 stalls in the summer of 1966. There are four rows down the barn . . . a single row of stalls along each of two outside walls, a double row of stalls (head to head) that really forms one "row," and a Vibra-Feeder for roughage feeding.

Milking is done in a double-six herringbone parlor where pellets are measured out by a bank of twelve time-clock electrical switches controlling motors moving the flow of pelleted grain from storage overhead. Top producers are shunted by an ingenious gate to a row of six stanchions just beyond the parlor, where they get an extra helping of grain. This same stanchion row holds cows for the vet, or for insemination.

Erton and his full-time employee operate the parlor, each using three milker units. There's an electrical heat mat built into the concrete floor of the pit . . . and an overhead quartz heater, as well as a portable space heater, also convert "wire juice" to heat.

Before deciding to build a whole new barn, the Siphers planned on remodeling their old one. But they're glad they decided to "start from scratch" . . . partly because of fire protection offered by separating the new facility from the old.

They visited many existing free-stall barn setups and drew up dozens of plans before pushing the "build" button. Along the way, they became convinced that the herringbone is the most efficient plan for a milking parlor. "If I had to go back to getting up and down milking cows, I'd quit milking cows," comments Erton.

A 24×60 upright silo holds corn silage for the 100-cow herd. Looking ahead, Erton believes he'll fill the big tub with haycrop silage, and then go to a horizontal silo for corn silage . . . feeding both next winter. This would mean a shift from a high-silage and low-hay ration to one even lower on the hay side.

Because of thorough planning and careful consideration before starting, the Siphers have a barn that works well. As compared to their stanchion barn, bedding requirements are down, udder injuries are reduced to practically zero, and labor requirements per cow are way down. – *GLC*



ELECTRIC



BY E. W. Foss*

FENCE SAFETY

ELECTRIC FENCES are great labor-savers — yet they can be most dangerous from the standpoints of both shock hazard and fire. This article may help you to understand how to use this farm tool with maximum safety. The equipment is similar to many other modern mechanical or electrical devices in that a certain amount of field maintenance is required to achieve both good performance and safety.

*Department of Agricultural Engineering, Cornell University

To begin with, the successful operation of an electric fence depends upon maintaining a high enough voltage on a fence line to "shock" an animal when it touches the fence, and the animal thus completes the circuit from the fence line to the ground. If this charged line comes in contact with weeds, wet wood, or any other possible conductor to the ground, the voltage potential may be reduced (or grounded out or shorted) so that it is no longer effective in containing livestock. If the voltage is too high, amperage too great, or the pulsating "on" time is too long, a serious hazard is created for human and livestock safety — as well as the causing of fires. Years ago the Underwriter's Laboratory was created to test all manner of electrical (and other) equipment for the protection of the public and to aid the insurance industry. In purchasing a fence controller or any other piece of electrical equipment, your best rule is to select only from those models which bear the U L. label or the Wisconsin Industrial Commission approval.

Unfortunately, only a few fence controllers on the market have such a label, the reason being the consumer's preference for low cost and an electrical output that tends to resist "grounding out" — but which is potentially dangerous from either or both electrical shock and fire standpoints. **You** have the choice between purchasing a quality device and doing a good job of building and maintaining a fence line, or purchasing a "hotter" unlabeled unit and with it the risk of both electric shock and fire! Tests by the Underwriter's Laboratory have indicated that fire can result under certain farm conditions with unapproved controllers.

After purchasing a quality controller, the next step is to locate it in a weather-proof box away from any farm building. If the unit is powered by A. C. current, use a three wire U. F. cable to the nearest outlet at the barn or other building. Protect the cable from mechanical damage. The third wire of this cable should be attached to an electrical "ground" at the convenience outlet, or a separate ground rod. The fence controller itself must be grounded (but not the fence wire) with an eight foot ½ inch copper rod or ¾ inch galvanized pipe. This ground should also be interconnected with the lightning ground if the buildings are lightning-protected.

Use standard insulators to secure the fence line at every post. While dry wood is a fairly satisfactory electrical insulator, wet wood (particularly if it contains soil or farm chemicals) is a fair conductor and will char to the point of fire if subjected to continuous fence-controller surges at some settings; actual tests indicate this can happen in a few hours. Circumstantial evidence has also linked several barn fires to the practice of running "hot" fence wires through holes in wood!

Throughout the growing season keep the fence line mowed so that no weeds can come in contact with the fence. Check tree limbs overhead to be certain that they are not apt to break off and short out or break the line.

Effect of Moisture

From a precautionary standpoint, you should realize the effect of moisture — or the lack of it — upon shock hazard both to humans and livestock. Warn young children to stay away from an electric fence or the controllers. A barefooted child in wet grass can get a terrific jolt from a hot wire, especially one connected to a fence controller with a long "on" period in its pulsations. **High voltage** brings greater danger from fire — with **higher amperage** and longer "on" time of pulsations there is greater danger from serious shock.

The electric fence is an excellent and needed farm tool. Make maximum use of it. Do, however, select it wisely, install it as directed, and maintain the line. It will then be both effective and safe!

American Agriculturist, April, 1968



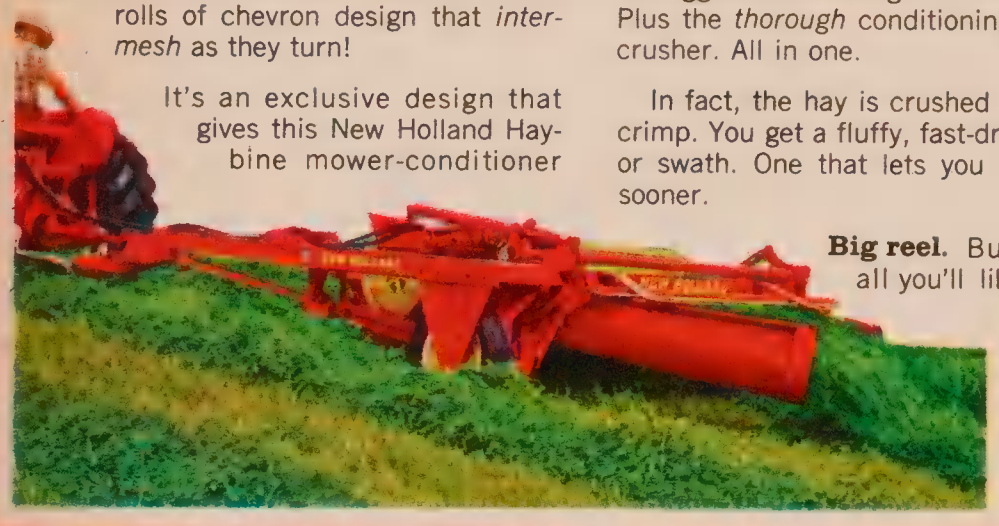
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You've never seen anything like it . . . rubber rolls of chevron design that *intermesh* as they turn!

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Big reel. But this isn't all you'll like about the Haybine. There's a big reel out front that lifts downed and tangled crops . . . even lodged, high-yield alfalfa. If you move into tall, stemmy material (like the tough new sudan-sorghum hybrids), simply position the reel toward the rear. This reel does another job, too—keeps the cutterbar clear. So even when a Haybine plunges into dense stands—too heavy for an ordinary mower—you can maintain a fast, steady pace.

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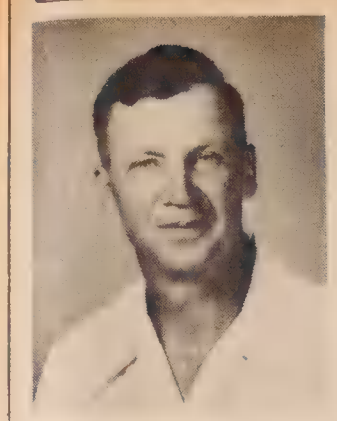
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Gayway Farm Notes

by HAROLD HAWLEY

LONG ROW OF CORN

It wasn't until the ground froze in February that corn harvest could be resumed in our area. This was a long harvest, stretching from October through February.

One of the good things to come out of all this was an opportunity to compare standability of various corn varieties. Late harvest and exposure to storms separated the men from the boys. We had one old favorite that we can do without again. It couldn't take it.

The new XL crosses were unbelievable, standing almost 100 percent months after they should have been harvested. Even without the big yield increases which they give, the extra-stiff stalks would recommend them.

We still use a picker . . . then grind the grain and cob together for high moisture corn, and crib the rest of the crop. Of course, the big switch is to combines. This is creating a new problem. All this shelled corn needs drying, and facilities in most areas are just not adequate.

There are several alternatives and it can mean a lot of money to choose the right one for each situation. Discussion with some Corn Belt acquaintances indicates they have the same problems in this respect. They feel as I do that if corn is to be sold it makes sense to find a home for it directly to the ultimate feeder so that it can be sold without drying. This assumes the buyer has a silo he can use for high-moisture corn storage. This gets away from all the charges of drying, shrinkage, damaged kernels, cracked grain, etc.

For the man with a sizable acreage of corn and/or other grain that is to be harvested with a combine if he cannot find a home for it from the field (as above) or who doesn't want to sell at harvest, it would seem to us that a dryer and storage facilities become a must. With them a man is freed of the delays occasioned by sending a truckload of corn to the elevator and having it tied up for a spell right when he wants to be out there harvesting. Likewise, he can hold the grain to sell when and where he chooses.

The poorest alternative, to my way of thinking, is to haul wet shelled corn direct from the combine for sale to the local facility. This procedure calls for sale at the low market of the year, involves taking all the shrink and damage plus all the delays of unloading.

I'm not sure how it should be worked out, but it seems reasonable to me that farmers should be paid for discolored, cracked, and otherwise damaged grain . . . not at full price but certainly at its feed value. It's pretty hard to justify a farmer's co-op docking him for all these things when the grain in question can then be ground up and sold for cow feed.

OUR BANKER FRIENDS

Almost as though it was yesterday, I recall the bitterness of farmers in Indiana (and elsewhere in the Midwest) when I first went out there in the fall of 1936. They had just been through the depression and the drought was upon them. They had seen their neighbors foreclosed on by the local banks. They still talked about being forced to sell 10 cent corn in order to meet a mortgage payment when both they and the banker knew that prices would soon improve. To them and to many others at that time the banker was a necessary evil to be used only as a last resort.

The attitude of farmers toward their bankers and of the bankers toward their farmer borrowers has fortunately radically changed. I suspect a good bit of the credit for this should go to the bankers. They have recognized the huge potential in modern agriculture and have geared to meet the needs.

Farmers and agricultural economists have long recognized that no one credit program fits farmers. The variation in types of farming, in seasonal capital requirements, and the dramatic fluctuations in farmers' ability to repay depending on the weather and markets, make flexibility a must in farm credit. For years, flexible it was not.

Now, thanks to a real revamping of their attitudes toward agricultural credit, many banks have become extremely realistic in their payment schedules and their renewal policies. They have hired people to service their agricultural accounts who have knowledge and understanding of farmers' needs. These men have made it possible for bankers and farmers to develop a mutual trust and understanding. While it may still be hard to meet the deadlines, at least most worthy farmers know their banker will be reasonable and will work with them as far as sound business practices will allow.

Better farm records will help many farmers to demonstrate their ability to use additional credit, and will help the farm loan man to justify larger loans.

Like many another farmer, we have used sizable chunks of credit from time to time. Over the past twenty years we have gradually arrived at the point where we regard our banker as a much-needed and welcome member of our production team. We feel he understands our business and respects us as businessmen . . . as we respect him. This is a nice relationship; one we will try to do our part to continue.

THE CURRENT IS OFF!

Is there a single thing which can happen to a modern farm . . . or a modern home for that matter . . . which can throw the schedule off so much so fast? The other night we started chores early so as to be in time for a meeting some distance from home. We were half done milking when the power failure occurred.

Reaction number 1 . . . don't worry, it will only be off for a few minutes.

Reaction number 2 . . . well, if we can't milk let's get something else done. Guess we won't feed the cows without power . . . nor water the calves . . . nor anything else. A trip to the house suggested that prospects for an early meal or any meal were a little dim.

Reaction number 3 . . . reading by candlelight isn't what it has been cracked up to be. So we caught a nap for an hour, then back to the barn when the current came on. Literally, nothing could be accomplished without electricity.

Of course, it wasn't off long enough to cause worry about the milk cooler not functioning, nor was there any concern about water. A short time without feed for the cows certainly wasn't serious. Fine . . . but what happens when you are stranded for 12 to 15 hours? The things that can be done are limited only by what has to be done. I remember getting some week-old baby chicks through one bitter zero night with bottles of hot water put under the hover as a substitute for electric heat (we had a coal stove then).

We've all known of cows going to a creek for water in winter when there was no current to pump water. Cooling milk in small quantities with no current was no problem, but it is a challenge when herds are large. Whereas once everybody turned to and tried to get the milking done by hand, this has become a completely unrealistic action in view of the number of cows kept per man on many farms.

All this should naturally lead me to suggest that everyone should rush out and buy a standby generator. I'm sure the peace of mind one would bring would be worth a great deal. On the other hand, it is realistic to figure up the number of times power has been off up to 12 hours in the past five or ten years, figure one's maximum loss if it happens again, and divide that loss over the proper period. If this loss is greater than the cost of owning a generator, then one may be in order.

We've been scared a few times, but in 21 years here our current never has been off for 12 hours. With such good service, we feel our best bet is to invest the money a generator would cost in something we can use more often. If we lived in a situation where our experience was less favorable, then we likely would feel we should own a generator.

WHEN, WHERE, HOW

Was the time when the decision to be made regarding corn fertilizer was a pretty simple one. Either you put some on or you didn't. If you did, you put it on with the planter or drill as you dropped the seed.

Now we have multiple choices. We can apply fertilizer dry (bag or bulk), anhydrous, or liquid. We can knife it in, spread it on top and plow it down. We can put it in the furrow slice or apply it to the plowed surface and disc it in. Part or all can be put on with the planter wet or dry. The crop can be side-dressed with it or the foliage can be sprayed with it. In addition, some add it to the irrigation water . . . and I don't know how many other ways there are.

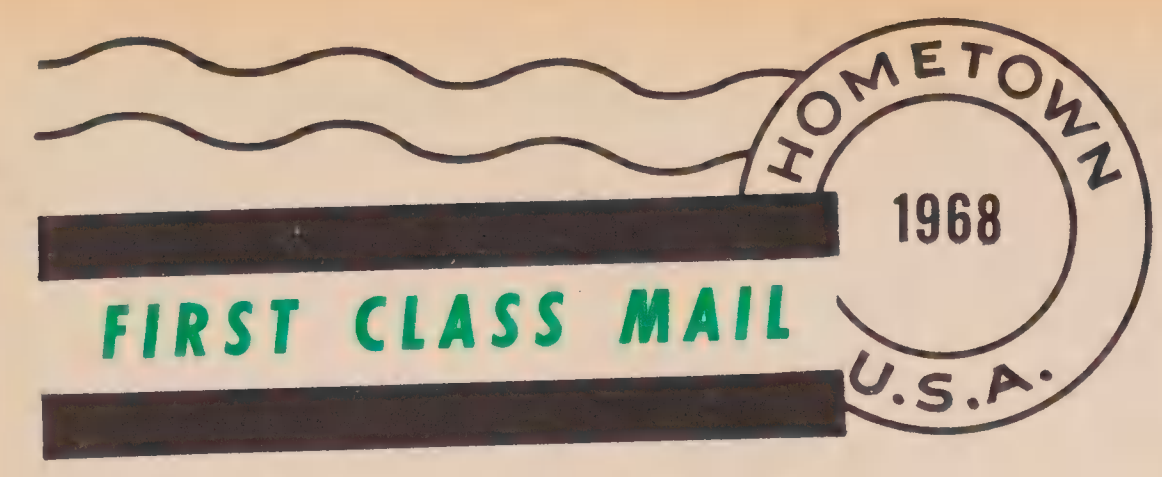
The results obtained by different methods, materials and amounts at different corn populations and in different width rows are confusing enough in themselves. Add to this the price differentials for various materials from individual suppliers, plus the availability or lack of equipment to apply them, and it is little wonder no two farmers agree as to how they should be feeding their crops.

We have intentionally stayed away from trying to do too much fertilizing through the planter just because this takes more time than we can afford right when corn should be planted. Likewise, we are getting better stands on our sidehills with lighter applications of high analysis stuff through the planter as we are getting less burning of the seed and seedlings.

In general, whatever way gives the cheapest **per unit cost of each of the three ingredients in the soil** has appeal to us. We are open-minded about the need for a bunch of minor elements, but not to the point of dropping a bundle for these extras.

Likewise, we stand ready to be shown that foliar application of liquid fertilizer is worth the extra cost per unit of plant food. The last time we got interested in this we spent a little of our money. This time it will have to be somebody else's money we experiment with.

In general, never before have there been so many choices. Never before have so many farmers really "fed" for big yields. I suspect that regardless of their choice of plant food, equipment to apply it, and where and when to fertilize, they will continue to use more and more plant food and haul off larger corn crops!



SHAPE UP OR SHIP OUT!

Production for the market appears to be as obsolete among our so-called farm leaders as soap and water among the Hippies, and economic principles as out-of-date as haircuts.

In this age of power worship, either you have the votes to get what you want through government by marketing orders, import restrictions or quotas, or you don't have the votes, so you organize a big block of producers and browbeat the rest into violent interference with the flow of produce to market until enough consumers cry out in hunger . . . that is, voters cry out in panic . . . "Give them what they want, but get our babies' milk." Then we all have the gall to call this system "freedom." It's enough to choke a hog.

The only excuse in the living world for any price for milk or any other product is a consumer who wants the product and is willing and able to pay the price for it. Competent producers supply consumers with the best possible quality at the lowest possible price and make money doing it. That's all there is to market economics except the mechanics. The folks who are smart enough to keep the mechanism simple keep their costs low and enjoy a healthy margin. The cry-babies who yell for more government help or a bigger bargaining bludgeon utterly fail to comprehend this simple fact . . . what price you get for your output matters little so long as you manage to keep your costs below it.

Over the last quarter century, milk prices have fluctuated within fairly static limits. Meanwhile, production techniques and processes have multiplied the dairymen's capacity to produce, so that now a good operator markets five or six hundred thousand pounds of milk a year, per man. By contrast, he had to be good in the mid-forties to make two hundred thousand. The mass exodus of former dairy farmers was and is made up largely of operators unable or unwilling, for a variety of reasons, to make the changes necessary to keep pace with the expanding output per man of the industry.

The relentless rule of the market applies to both quality and quantity . . . compete or be replaced. It applies in every field of endeavor, not just in farming. Every schoolboy competing for a place on the varsity understands it with utter clarity. He just has to be better than anyone else or he won't get to play.

The sooner we grownups relearn that there is no refuge for incompetence or laziness in a union, a federal order, a co-op, or any other such device, the sooner we'll insure our own economic security by competence. The only other source of security is not economic. It involves some degree of parasitism, and it is a house built on sand.

The only claim we have on freedom is access to the market with whatever product we choose to offer. If it's good enough and cheap enough people will want it and pay for it. If it isn't, we're still free to improve it or try another. *—Melvin H. Mandigo, Glover, Vermont*

TAX COMPARISON

In an editorial, you said New Hampshire just put a head tax on people 21 to 70. We have had that "temporary" tax since World War II, this was just a legal extension. It illustrates a point; a temporary tax usually becomes permanent!

Why saddle New Hampshire with a load equal to New York? In a trip across your state, nearly everyone we talked to complained of New York taxes and advised us to keep ours down.

I don't really believe our schools or municipal services are poorer than New York's. We get as good roads, more state parks, and our children are educated just as good as a tax-burdened state, even though we are oddballs.

I was a poultry farmer until about six years ago, and it wasn't real estate taxes that put me out of business. In most cases the farmers' land (in our area) is not taxed as developed land unless we have sold some of it for building lots, thus showing the selectmen what we think it is worth.

I believe if we can keep our state spending in line with our present tax system we won't overburden anyone and we will continue to get more industry and new people.

Our small farms are not really needed in today's economy, so, sad to say, our land is more valuable to build on. — *R. A. Cleveland, Hillsboro, N.H.*

AGREES

We began to collect a head tax after the Korean War to give a bonus of $200 to each of our veterans. The tax has never been stopped and we continue on and on. I have been a local tax collector.

I believe you refer in your editorial to our new tax started in May 1967, which is a rooms and meals tax of 5 percent. It is not a very popular idea and I agree with you, we should have a broad-base sales tax as our neighbors have. — *Mrs. F. W. Twombly, Tilton, New Hampshire.*

HEART TROUBLE

In answer to your article "Grabbed in the Heart" in a recent issue, I am quoting from an article in the May, 1967, "Prevention" magazine . . . "Sugar Undermines Heart Health."

"Dr. Thomas Francis, Jr. and his associates at the University of Michigan Medical School carried out a study in Tecumseh, Michigan, a small city with a population of approximately 9500 people. Dr. Francis found out that an elevated blood sugar level was indeed a strong indication of a future heart attack. Much stronger, in fact, than blood fats and high blood pressure, two factors that now are most commonly linked with heart disease.

"In the world as a whole, the consumption of sugar in the past 25 years has more than doubled. It has been recently shown that in the United States during the past 70 years the consumption of fats has only increased 12 percent. There has also been a significant increase in the ratio of the polyunsaturated fats to the more dangerous saturated fats. With such a low percentage relating to the consumption of fats, coronary heart disease should show a marked decline, instead of the very considerable rise that has in fact occurred.

"However, during this same period, sugar consumption (bleached sugar) has increased 120 percent. Heart disease has increased proportionately. There now is evidence that men who have recently experienced a myocardial infarction have been eating twice as much sugar as those men who manifested no evidence of coronary heart disease. This difference is highly significant and of the utmost importance.

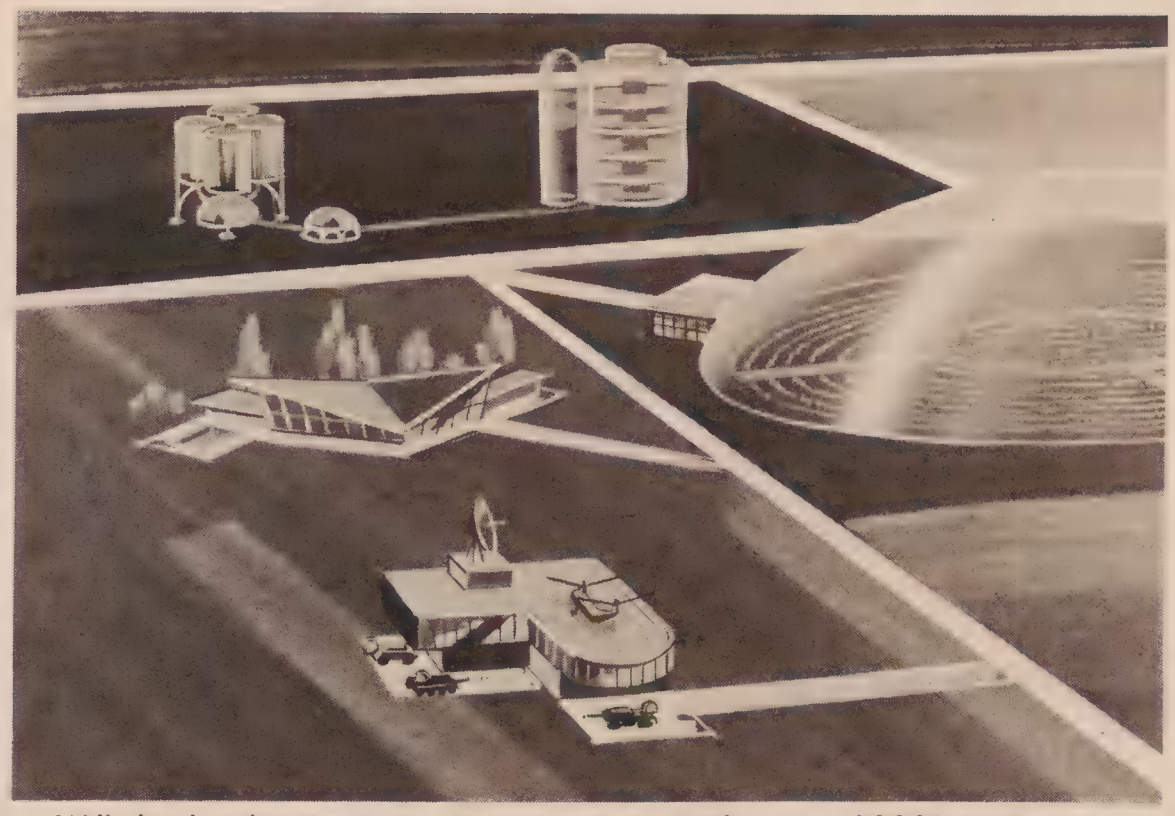
"Whether it is a piece of cake, a candy bar, or sweetening used on cereals, sugars play an important role in ill health of a typical American's diet . . . more important in fact than the fats he eats.

"With such an abundance of evidence linking sugar and coronary heart disease, one should be fully aware of its consequences and try to eliminate sugar from the diet entirely."

Being a beekeeper, and naturally having an axe to grind, I would here like to advance some of my own personal ideas.

Beekeepers have been noted for centuries past as having a longer life expectancy than most other groups of people. The main reason is that they include honey in their diet very liberally. Honey is a natural sweet and adds to a healthy diet instead of subtracting from it.

If you have to have a great deal of sweetening added to your diet because you have a sweet tooth, like I do, use as much honey as you can . . . in coffee, tea, milk, on cereal and fruit, in sandwiches, and in all pies and desserts. Honey is really a bargain at its present price. My family uses 5 pounds of honey a week! *—Edward Lord, Hannacroix, New York 12087*



Will this be the "typical" American farm in the year 2000? In the right background is a high-rise cattle barn, with completely-controlled environment. At the left background is a warehouse complex and refinery where waste from the barn is purified and recirculated back to the barn. At the right is a huge plastic dome covering ten acres or more, and under which crops are grown with computer-controlled environment for maximum production. To the left of the dome is the farm house, and in front of it the control center from which the farmer will direct an array of equipment and personnel by electronic machines which are just now being developed. This illustration is from "Agriculture 2000," a study conducted by Ford Motor Company's U. S. Tractor and Implement Operations to project the look of farming at the turn of the century.

PULLING POWER

The December 1967 issue of American Agriculturist carried a short news item in regard to Penn State's correspondence courses in agriculture and home economics. Response to this item has been excellent. About 400 people have requested a copy of our bulletin.

We appreciate the help you have given us. — *Prof. Walter Haldeman, The Pennsylvania State University, University Park, Pa.*



GREEN GOLD

You farmers all know what good haylage can mean to profitable farming

To get this green gold (alfalfa haylage) converted to white gold in the milk pail means high production at the lowest cost.

This calls for close attention to kinds, amounts and quality of forage fed. The amounts of protein, mineral and vitamin levels needed in the grain will depend on the quality of the forage.

But, most important, after you have produced high protein haylage, you need to store it properly to maintain the quality until it gets in the cow's belly.

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Where the action is

CORNFIELDS . . . NORTHEAST

CORN has been gaining ground . . . literally . . . in the Northeast for a number of years, and for good reasons! No forage crop can beat it at producing the most digestible nutrients per acre. Furthermore, harvesting it doesn't suffer from "catchy" weather, as hay does, and corn silage fits a mechanized flow pattern beautifully. Efficient materials handling is the order of the day, and silage can beat a hay bale hollow on this score!

For grain, corn has gotten a recent boost by the trend toward using high-moisture material . . . either shelled grain, or with the cob included. The Northeast doesn't have the longest corn-growing season around, and the early harvest possibilities offered by high-moisture harvest . . . and storage in the silo . . . has saved a lot of golden grain that otherwise might have gone to the pheasants!

Locked Down

Old Bossie has come off the pastures to a considerable extent, and she's now getting most of her nutrients from cropland a lot more expensive than those hills she once roamed in search of blades of grass. So now the name of the game is to produce a whale of a lot of feed per acre on this expensive land . . . and corn, if it's handled right, has more yield potential than any other crop.

A growing number of farmers . . . usually in the corn-silage-yield class of 20 to 30 tons per acre . . . are feeding their dairy cows an all-silage ration, or at least a high-silage ration. Time was when dairymen and animal husbandry specialists alike thought that it was impossible to feed such high levels of silage . . . another one of those time-honored things we knew for sure wasn't so.

It looks as though 1968 will be another year when the cornfield will be where the action is . . . and here's a quick look at some of the likely action.

Narrowing up row-width is the topic we hear most about, but it has less relevance in much of the Northeast than in the Corn Belt. Soybeans, widely grown in many of the other corn-growing areas of the nation, show marked and consistent increases in yield when narrowed up. Since the same equipment is used for corn and soybeans, it's a reasonable idea to go to corn rows the same distance apart as are needed to take advantage of the narrow-row soybean yield potential.

Corn, though, shows only a so-so yield jump in narrow rows versus wider spacings . . . and even that seems to be erratic. Martin Weeks, agronomist at the University of Massachusetts, reports from his experiments that, "When populations were the same, there was little difference in yield of corn grain between rows of corn spaced at decreasing 4-inch intervals between 40 and 24 inches." Going from 40-inch corn rows to 30-inch shows a fairly consistent yield increase, but going from 30 to 20 often produces inconclusive results.

Raymond (Red) Donald of Moravia (Cayuga County), New York, went all the way with 20-inch corn for grain in 1967 . . . planted 350 acres of it. The Donalds don't grow any other row crops . . . oats and wheat round out their planting list . . . so there is no problem of fitting row equipment to other crops than corn.

Corn equipment was all changed to fit . . . including an 8-row, 20-inch-interval planter, and a combine with a 4-row corn head. The final plant population at 20,000 per acre was held to the same as previously used with 40-inch rows, but it's planned to go to 23-24,000 in '68. Fertilization was done with a yield goal of 150 bushels per acre, but it ended up just over 100. Even so, the Donalds will go with 20-inch rows again this year . . . and shoot for a higher yield.

Fertilization included 120 pounds per acre of potash . . . either plowed down or applied after plowing . . . plus 125 pounds of nitrogen chiseled in as anhydrous. Finally, 150 pounds per acre of 21-53-0 went in through the planter.

Rootworm has become a problem here where corn follows corn, and the Donalds have been treating for it over the last three years.

Philip Munson of Groton (Tompkins County), New York, used 20-inch rows for silage corn in 1967 . . . harvested with a 3-row chopper. Plant population rate was up to 35,000 per acre. Silage goes into a big horizontal silo for storage before moving on to Phil's 100-cow herd.

Points

Farmers and everyone else connected with corn growing agree on three important considerations if you're considering going to narrow rows:

1. Pick the **right hybrid** for the job. Each variety responds differently to being crowded . . . some do better, others perform far worse. If you pick the wrong variety for squeezing, you'll be in as bad shape as if you pick the wrong gal!

2. Get your equipment figured out so you don't have a logjam right in the middle of everything. Many one-row choppers will roll right over the next row when harvesting narrow-row silage . . . and a conventional two-row chopper comes a country mile from fitting the rows. Take into account the entire corn-growing process from plowing to harvest . . . and remember the equipment requirements of all the other crops you're growing.

3. Be sure you're doing as well as you know how at your present row-width before considering narrowing them. There is no magic in narrow rows that will overcome existing holes in your management bucket. If you're getting top yields already, though, and are looking for new worlds to conquer . . . then narrow rows offer a possibility for reaching a bit higher.

For most northeastern farmers, row widths ranging around the 30-inch interval look like realistic goals toward which to be moving . . . assuming equipment changes can be geared to mesh with such a shift. Some of the innovators in the corn-for-grain business will go down to 20 inches, but they will be few and far between in 1968.

Population

As for plant population . . . research and farmer-experience recommendations are generally for 20,000 to 24,000 plants per acre, the exact figure depending on fertility, which hybrid is being used, expected soil moisture, etc. If soils are light and on the drouthy side, plant populations under 20,000 may fit better.

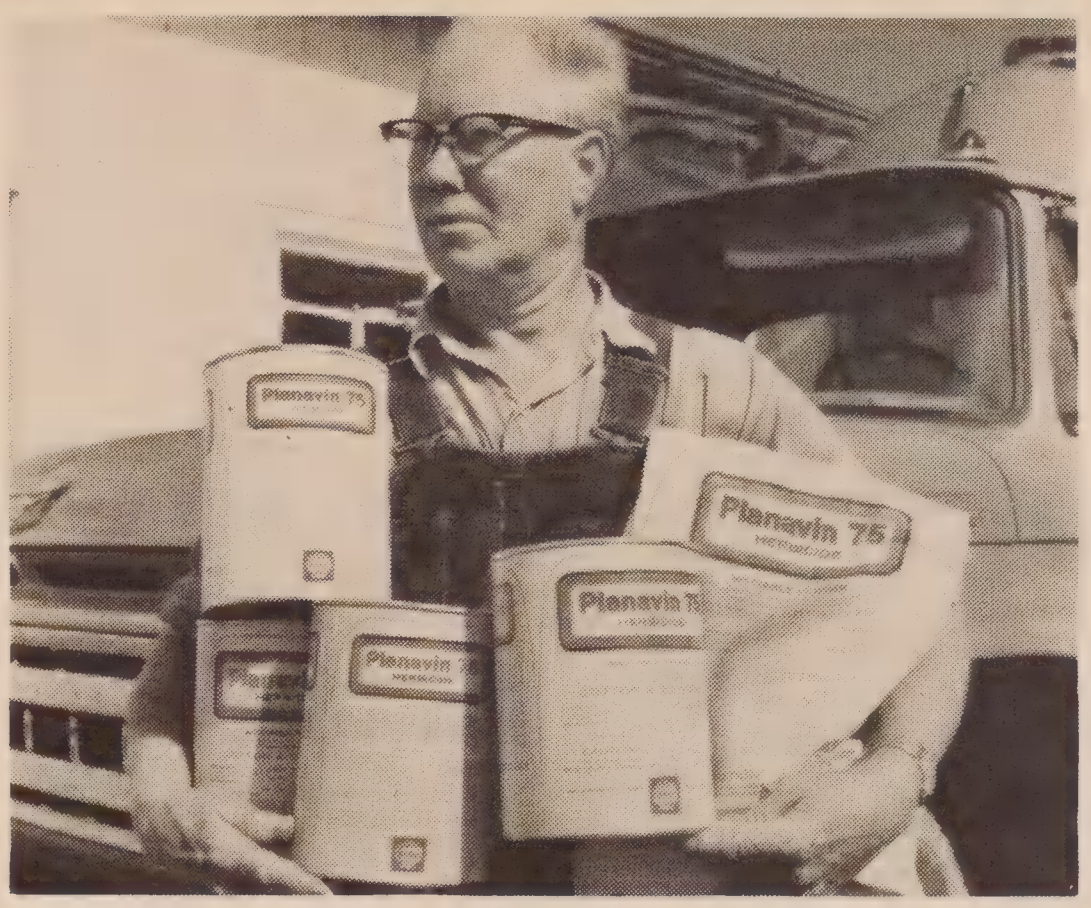
Most folks think narrow rows **always** mean more plants per acre, but this is a misconception. Allow for the percentage germination figure on the bag, and figure that the hazards of real early planting may take out up to 20 percent of those that do germinate.

Depth of planting gets a lot of discussion by farmers. The general rule seems to be that early planting (in soil likely to be cold except on top) should be a shallow one-to-two inches, but as time passes and soil dries (and warms), then go to deeper planting. Some farmers, remembering the series of dry years in the recent past, believe they should "sock all corn down deep." But remember that depth of planting always influences the length of time it takes for emergence . . .

(Continued on page 22)



A number of companies are making narrow-row equipment. This three-row chopper handles rows from 26 to 32 inches wide.



Soybean growers bought every pound of Planavin® Herbicide they could get their hands on last season.

Planavin® 75 Herbicide is more than just another good preemergence herbicide for soybeans. That explains why it sold out so fast its first year on the market—against established competitive products.

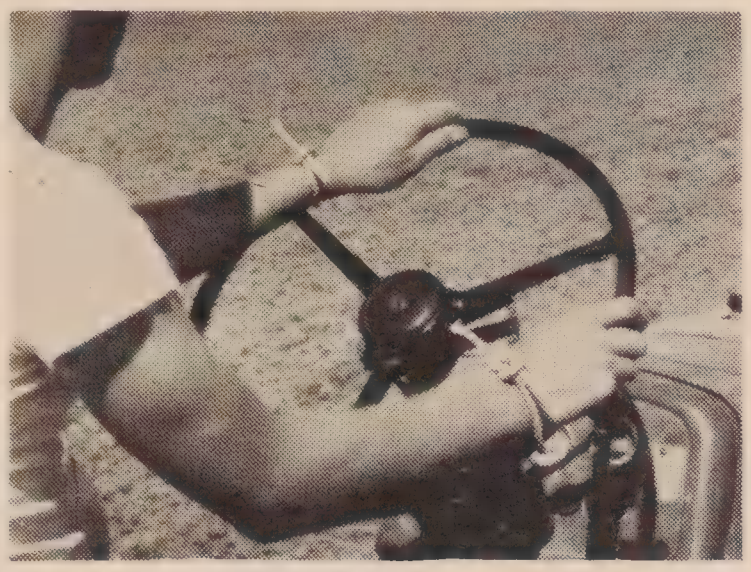
Along with first-rate weed and grass control, Planavin provides greater application flexibility than any other preemergence herbicide.

Soybean growers *really* found out how good it was when they put



Soybeans sprout and grow, but weed and grass problems sprout and die, when you apply Planavin before you plant.

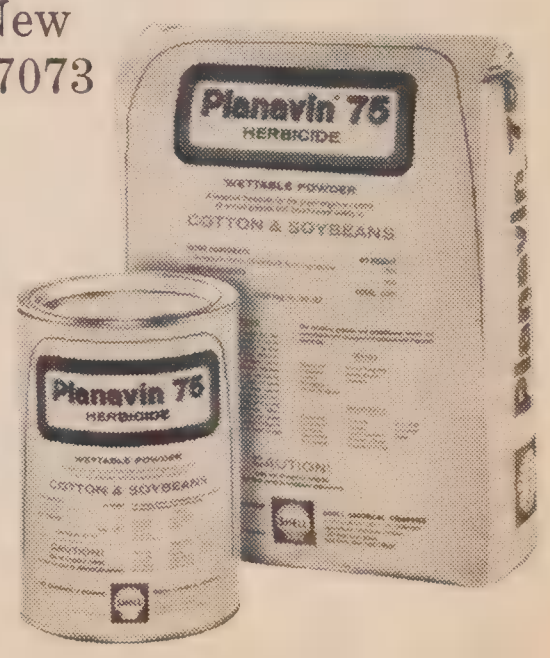
Planavin to work last season. It held the fort against most annual grasses and many broadleaf weeds, even in the face of some of the worst weather in years. It worked, wet weather or dry, right on through the season when weeds can strangle soybeans and limit yield.



You're not tied to immediate incorporation when you use Planavin. You have a few hours between spray and incorporation..

Planavin is a soil-incorporated herbicide—*the one you don't have to incorporate immediately.* It frees you from dependence on rain to carry it down, or activate it. Control starts as soon as it's mixed into the soil. There's no need for immediate incorporation because a Planavin spray doesn't lose its control power when exposed to a few hours of air and sun.

Planavin lets you spray large acreage fast, by ground or air. You can use large rigs, wide booms. There's no waiting for incorporation equipment to catch up. You can save hours of spray time. Note: (1) You can incorporate as you spray, if you prefer. (2) When you *do* incorporate, keep it shallow—no deeper than 1 to 1½ inches. Don't bury your Planavin below sprouting weeds. (3) Per acre rates can vary, from as little as 1 lb. on light soils, up to 1½ lbs. on heavier soils. Ask your local authorities for the rate recommended for your soil, and read the label on the Planavin package before you make your application. Shell Chemical Company, Agricultural Chemicals Division: 212 S. Central Ave., Clayton, Missouri 63100; 814 Northwest Blvd., Columbus, Ohio 43212; 2299 Vauxhall Road,
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MECHANICAL BUNK FEEDERS

SINCE bunk feeders are one component of a complete materials-handling system, many of the selection factors depend upon the other major items of equipment in the system. However, there are several general rules which should be observed regardless of the type silo unloader or manual-removal equipment to be used.

In any attempt to compare the cost of a mechanical bunk feeder with the cost of a bunk-feeder wagon and fenceline bunk arrangement, remember that for dependable all-weather use you'll need a good quality driveway along the entire length of one side of the bunks. Although fenceline bunks eliminate the cost of a fence, the cattle can use only one side. Thus, you'll need twice as much length per head as compared to a bunk in the lot.

Calves and larger cattle on full feed need about 1 foot of bunk space per head. For dairy cows, allow about 2 feet of bunk space per head if they are all eating at once.

Several Materials

The feed bunks may be constructed of wood, poured concrete, or precast concrete. Before deciding upon the material for your bunks, check prices in your area. Though the initial cost of concrete may seem high, its better resistance to damage by weather, by cattle, and by manure loaders during cleaning of the lot may well make it the most economical material.

The bunks should be arranged in a north-south direction. This permits the sun to reach all the manure (if there is no roof) and thaw it for early removal in the spring. The bunks should also be arranged at right angles to the loafing shed, so the cattle don't have to walk around them to reach the feed.

Since the bunk-feeding system is part of a long-term investment, consider the possibility of expanding your feeding arrangement during the life of your equipment. Good planning frequently reduces the cost of future additions without increasing the cost of your present construction or installation. Lack of such planning often produces a system which makes future expansion completely impractical.

Arrangement

Also consider access and ease of manure cleaning with your tractor. The feedlot should be arranged so it does not interfere with silo filling.

A roof over the feed bunk helps keep feed and equipment dry. In some cases, the roof is extended to provide protection for cattle while they're eating. However, remember the roof also shades manure from the spring sun, which delays thawing in the shaded areas. Manure dropping into the bunk can be reduced by building a step 6 to 12 inches high by 1.5 to 2 feet wide along the entire outside base of the bunk.

Open-Bottom Auger – This is probably the most widely-used type. It's usually an 8 or 9-inch-diameter auger with a 2x10 plank on each side. In operation, the feed falls out the bottom of the auger, starting at the "near" end. As the feed builds up to the level of the auger, it forms a "bottom" which causes subsequent feed to be carried farther before it drops into the bunk. This process continues until the feed reaches the "far" end of the auger.

Total amount of feed distributed can be changed by adjusting the height of the auger and plank assembly above the feed bunk.

Primary advantage of this type is its simplicity, which reduces maintenance problems and helps keep the initial cost down.

Limitations include its inability to distribute different rations to two or more groups of cattle. If silage and concentrate are to be properly blended, the concentrate must be metered in proportion to the flow of silage from the unloader.

In practice, some farmers simply fill the bunk with silage and then run in the concentrate. The difference in particle size between the silage and the concentrate tends to permit the concentrate to escape from the auger and mix with the silage.

In some feeding situations, the fact that the bunk is filled progressively from one end may cause crowding by the cattle.

The auger is usually arranged to turn about 200 rpm. At this speed, power required is about 1 hp for each 20 to 25 feet of auger length.

A general guide figure on costs is $75 to $125 for the speed reducer, brackets and hopper; $75 per horsepower for the motor; $4 to $6 per foot for the auger, bearings, and brackets.

Floating Auger – In this arrangement, a J or U-shaped metal trough . . . open at the top . . . supports the auger. Shaft bearings are not used, as the outer edges of the auger ride on the support tube or on special wear plates. This arrangement eliminates the shaft-support bearings which cause clogging when present. Bottom doors in the J or U-trough arrangement are opened individually to determine which portion of the bunk receives the feed.

One variation of this arrangement includes a power-driven shaft which is connected through level-gear sets to each of the rods supporting the trough assembly. When the shaft rotates, it drives the threaded rods; and thus raises or lowers the entire auger assembly in relation to the feed bunk. It is then possible to control the amount of feed delivered to the bunk.

Another version includes a device which keeps the bottom doors closed until the entire length of the auger is filled. Once filled, all the doors simultaneously open to dump the feed along the entire length of the feeder. The doors then close, again opening when the trough is full enough to dump. This arrangement eliminates the crowding and pushing which results from filling the bunk from one end.

Enclosed Auger – In this arrangement, the auger is enclosed either in a tube which completely surrounds the auger, or in a trough . . . to which a cover can be added for protection.

Small holes or slots are arranged in the side of the auger enclosure with the highest holes nearest the feed end. The auger is started, and within a short time a small amount of feed from the top of the "stream" drops out each hole. In the enclosed auger, the holes are adjusted by rotating the tube. The trough-type auger has sliding gates.

Total amount of feed distributed depends on the length of time of operation. Silage and concentrate need not be fed into the auger at the same time because the auger will distribute the concentrate along the entire length of the bunk.

With either type enclosed auger, a diverter can be used to direct the flow of feed to the opposite sides of a divided bunk. By properly arranging lots and feed bunks, the same auger can be used to distribute different rations to two groups of cattle. In addition, the adjustable openings can be rearranged and controlled in separate groups along the length of the auger. This divides space on each side of the auger into more than one lot, each lot supplying a different ration.

In one version, the tube is divided into independent sections suspended from the hangers by a series of cables and pulleys. Each section can be rotated to permit the feed to escape along a slot which runs the full length of each section. For cleanout, the slots are rotated to the bottom allowing the auger to empty completely.

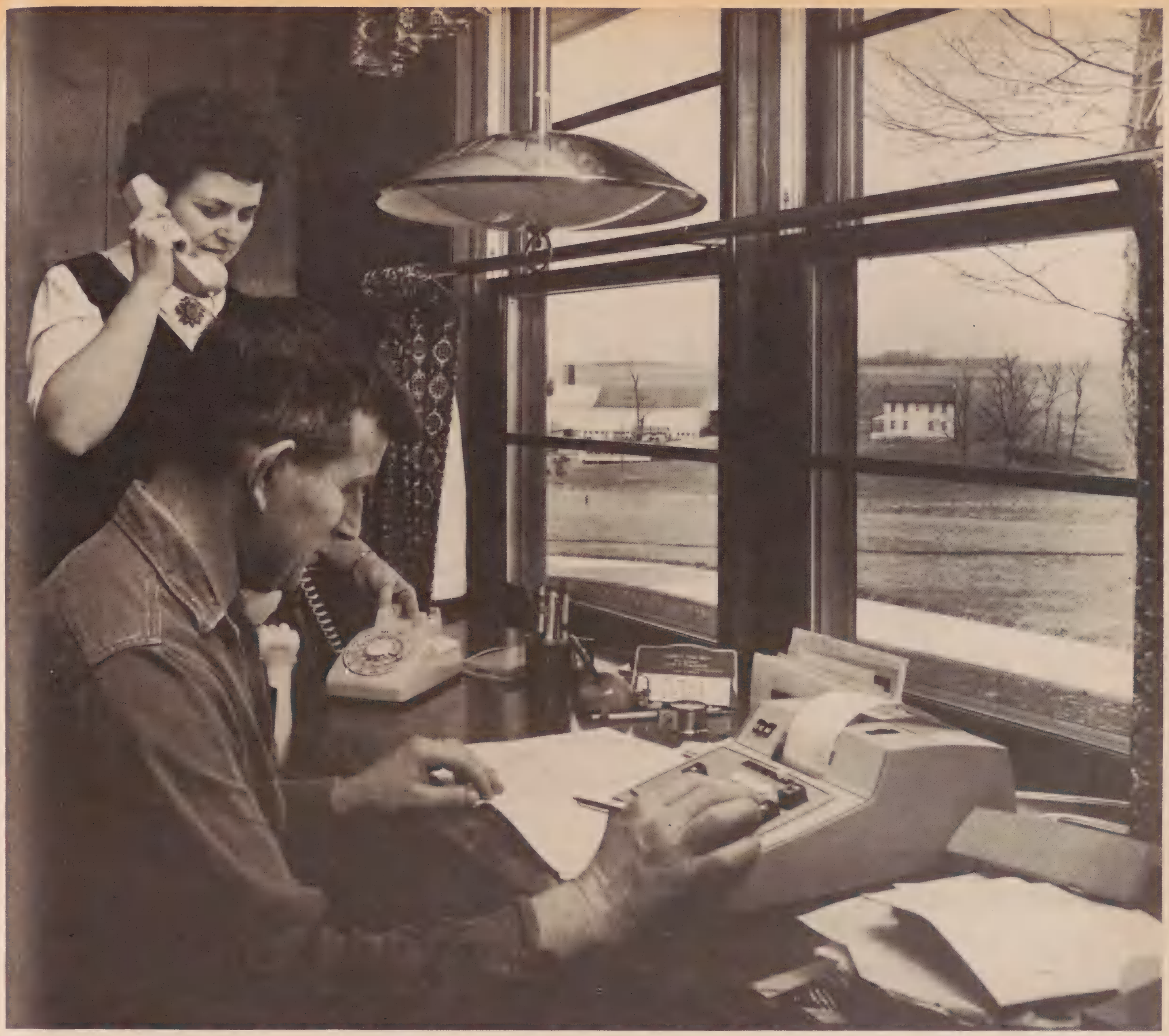
Primary advantage of the enclosed auger is the ease with which delivery can be controlled, both in amount and place in relation to the auger. In addition, the uniform delivery along its length reduces crowding.

Limitation of this type auger is the increased cost resulting from its greater complexity. In cold weather operations, extra care is also required to make sure it is permitted to empty completely before being shut off. Otherwise the silage may freeze and cause start-up troubles.

At auger speeds of about 200 rpm, the power requirement is about 1 hp for each 30 to 40 feet of auger. Costs are usually high when compared to the open-bottom auger. Estimate $200 to $250 for the speed reducer, brackets, hopper, and adjustment mechanism; $75 per horsepower for the motor; $8 to $10 per foot for the auger, tube, and brackets.

Rotary Feeders – One of the

(Continued on page 27)



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Horizontal silo at the farm of Richard Byrns.

NORTH COUNTRY BUNKERS

HORIZONTAL SILOS are fairly common in the Hudson Valley and southern New England, but a number of people say this way of storing silage "wouldn't work where it's colder and snowier."

However, three dairymen in New York's North Country ... all in the Gouverneur (St. Lawrence County) area ... report favorably on their bunker silos for storing corn silage. Furthermore, all three express plans to enlarge them in 1968.

Began In '66

Richard Byrns began using his 24×80-feet bunker (10 feet high) in 1966, and built an additional small "quickie" horizontal silo in the fall of '67 to help handle the whopper crop from 38 acres of corn. He plans in '68 to add 30 to 40 feet on the length of the 80-footer. There are 150 head of livestock to feed, 80 of that number being milk cows. The 1966-67 DHIC herd average was 14,000 pounds of milk and 588 of fat.

Dick has long been a hay enthusiast, but the labor problems involved in harvesting hay for large herds forced him to a split harvest time with more corn ... leaving **only** 22,000 bales of hay to harvest in 1967! He uses no pasture, feeds greenchop in summer ... and hay the year around.

In winter, corn silage is fed once a day ... hay four times a day, with molasses sprinkled on it twice a day in an effort to get additional consumption.

Reinforced Floor

The bunker here has a wire-mesh-reinforced concrete floor four inches thick over a gravel base six inches deep. Sides are of tongue-and-groove spruce, held by pressure-treated poles set vertically on four-foot centers without any tilt. The floor continues out and around the poles for greater strength. Cost was around $1250 ... including readymix concrete and other building materials but no hired labor.

Dick fills the bunker with a blower delivering in a lengthwise direction. Packing is accomplished by use of a two-plow tractor equipped with a rear-mounted blade for spreading and leveling silage. Last steps include a plastic covering, then chopped hay-crop silage (green) over the top to hold down plastic covering.

Packing Important

"Packing the stack well as it's being built is important," Dick reports. Spoilage has been small except where he added a foot of material on top of the tractor-packed stack ... and found that merely tramping on it doesn't suffice. Freezing hasn't been a severe problem either ... in spite of a cold snap in January that saw temperatures well below zero every night for a week.

Neighbor LaVack has a 30×60 (by 8 feet deep) bunker silo ... also with concrete floor and gravel sub-base. Unlike Dick Byrns, Fred has two upright silos ... a 14×56 and a 16×56 ... which he filled first with corn last year. But, even though corn grain was glazed (and leaves thoroughly frozen) by the time the bunker was filled, Fred reports a minimum of spoilage.

Used Blower

He comments that when he began filling the bunker, he drove through and unloaded directly from the self-unloading wagons. This gets pretty difficult as material builds up, though, so he, too, began using a blower for filling after the first few loads.

Looking ahead, Fred plans to enlarge the bunker so he can feed from it in the fall, then go to the upright silos during winter, come back to the bunker in spring, and feed haylage from the uprights in summer. He wants to make some oat silage for his 85-cow herd in '68, says that "Oats for grain are a lost cause with me anyway."

Arthur (Mike) Randall, who lives just south of Gouverneur, has a 30×40 bunker (8 feet high) ... also planned for enlargement in '68, along with their corn acreage. He had used piles of corn silage for several years, but found mud a serious problem ... something cured by the concrete floor

(Continued on page 23)



"My Hydrostatic Drive 656 works circles around my gear-drive tractor,"

says J. W. Broughton, Big Spring, Texas. "This spring I drove my International Hydrostatic Drive 656. My hired hand used a gear-drive tractor of the same horsepower. My Hydrostatic 656 worked circles around the gear-drive in the same field. I could always match speed *exactly* to the job.

While disking and listing, I noticed far less slippage even with less tractor weights. And on headland maneuvering, I left the gear drive far behind every time.

With a rotary cutter, I chopped far more stalks with the 656 Hydrostatic Drive than my hired hand could with the gear-drive tractor. The cutter shed trash better with just a slight touch of my thumb on the Speed Ratio control.

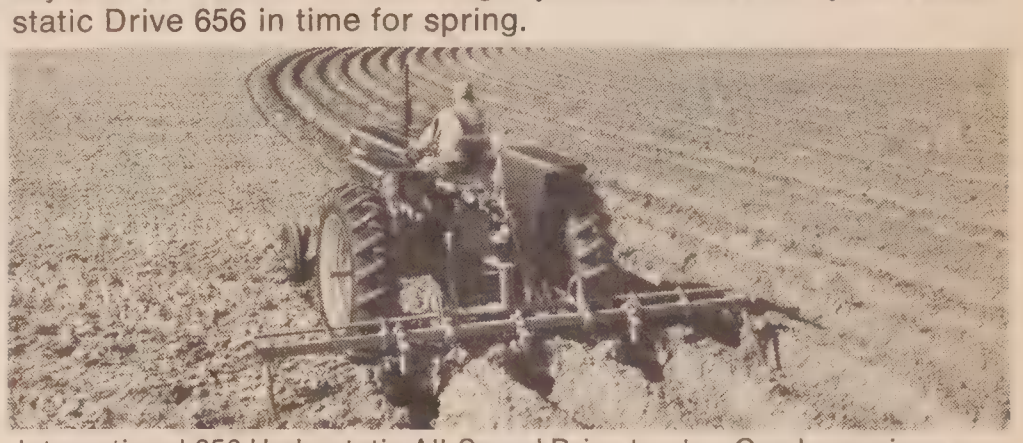
And what a whale of a difference infinitely variable speed will make when I plant, cultivate and strip cotton! Just let a man run the Hydrostatic 656—and he'll sell himself."

Don Ende, Beresford, S.D.: "I fall-plowed with my Hydrostatic Drive 656. I got more work done because I had the correct speed, full power at field ends and could make faster turns."

Peter Kuipers, Worthington, Minn.: "In a picking-bee against eight other machines, my Hydrostatic 656 with corn harvester picked consistently more. I feel the Hydrostatic Drive 656 is the only tractor transmission to buy."

A. W. Gustafson, Richardton, N.D.: "I use my Hydrostatic Drive 656 with a stacker-loader every day, all day to feed 800 head. The infinite speed range and traction built into the 656 allow me to far outwork any previous tractor-loader I've ever had."

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THE SQUEEZE ON BEEF

by M. D. Lacy *

HOW LONG can beef producers continue to produce more and more beef at prices less than 15 to 16 years ago? Figures released by the American National Cattlemen's Association show that production expenses at the farm, ranch, and feedlot levels have increased 73 percent in the 16-year period from 1950 to 1966, but the average beef cattle prices in recent years have been below the 1950 level. During the past 16-year period we have increased our beef production at the rate of 5.1 percent per year compared to an average annual rate of increase in U.S. population for the same period of 1.6 percent.

Consumers never had it so good. Last year we ate 105 pounds per capita, almost double that consumed in 1952, and at less cost than 15 to 16 years ago. During the past few years it has taken less than 19 minutes of work to buy a pound of beef of higher quality than would have been found 20 years ago when it took a bit more than 31 minutes of working time.

Again you might ask, what can the cattleman do about it? Leaders in the American National Cattlemen's Association believe that through a self-discipline program they can bring about a better situation for the cattleman of the future. A National Market Development Committee has been formed, and in turn state associations have named committees to carry out programs that they hope will help curb the over-supply of beef. Their economists point out that a 1 percent reduction in beef supplies usually results in about a 3 to 6 percent increase in live cattle prices. Conversely, a 1 percent increase in beef supplies results in about a 1 percent decrease in live cattle prices.

How do they expect to go about reducing beef supplies? The program highlights two activities, namely (1) selling slaughter cattle at somewhat lighter weights, and (2) stabilizing cow herds instead of continuing the ever upswing in numbers that has been happening for many years.

In times of depressed prices a common policy of the "farmer" feeder is to feed cattle to excessive weights, hoping for an increase in market price. What most producers fail to realize is that heavier weights are costly, and seldom pay off. The table below shows the average cost per hundred pounds of gain for cattle at different weights.

Weight Range	Feed Cost Per 100 lbs. of Gain*
400-500 #	$12.10
500-600 #	13.20
600-700 #	14.76
700-800 #	16.87
800-900 #	20.61
900-1000 #	25.10
1000-1100 #	30.62
1100-1200 #	40.78

*Based on average U.S. feed costs.

Average Feed and Non-Feed Costs/100 lbs. of Grain

Weight Range	Feed	Non-Feed*	Total
400–900	$15.51	$4.34	$19.85
400–1000	17.11	4.70	21.81
400–1100	19.04	5.14	24.18
400–1200	21.76	5.77	27.53

*Includes death loss, veterinary and drug expenses, labor, interest, depreciation, taxes, marketing expenses, and other miscellaneous non-feed expenses representative of U.S. cattle feeding operations. Does not include a cost or return to the feedlot operator's labor, management, and investment.

The information above was collected by economists of the American National Cattlemen's Association from feedlots and experiment stations over the country. The table plainly shows that once cattle reach the desired market grade they should be sold. The price of putting an extra 100 pounds on an 1100-pound steer is about twice as costly as an extra 100 pounds on an 800-pound individual. And much of the extra weight will be fat that will have to be trimmed and thrown in the tallow barrel.

Recommendations of the Extension Service over the years have been to market cattle when they reach the desired slaughter grade. On good-quality cattle this would be choice, and cattle of modern type should reach this grade when they weigh from 900 to 1050 pounds. The average cattle feeder in New York State does not feed cattle past their grade; however, this is quite common in the Cornbelt, where oftentimes corn supplies are over-abundant. Nevertheless, there are some producers in New York State who feed cattle to heavier weights than desired in times of low cattle prices. As we said before, this is usually a costly procedure.

A common error committed by New York feeders is to feed some of the small-type steers too long. For example, oftentimes producers prefer to make all of their steers weigh about 1000 pounds before marketing, even though some of them may be finished at 800-875 pounds. This is expensive, and also contributes to an over-supply of beef. If you have some of this kind, sort them out and sell them when they reach their proper grade even though they are 150-200 pounds lighter than your preferred market weights. It will cost you money if you don't. On the other hand, the cattle that are of modern type and finish at 1000 to 1050 should be fed to this weight, and then sold regardless of the market price. Don't gamble on a higher market later and keep your cattle too long.

Marked Calendar

I once knew a very successful cattle feeder in eastern Iowa who when he bought his feeder cattle in the fall of the year marked his calendar to show when he would start and finish marketing these cattle. This might appear unwise, but with him it was a good practice. He knew when his cattle would be finished; he never sold them too soon because of a rising market; he always finished them for their grade; and he never kept them too long because of a falling market. He owns a number of farms, and has been one of the most successful cattle feeders in his area.

If cattle feeders would just follow the sane program of marketing their cattle when they reach the low to average choice grade, much of the surplus of beef would be eliminated. Will the industry follow this program? Some say you cannot do it without regulations. Leaders in the cattle organizations believe that "beef cattle" people will come through.

Although cattle numbers have decreased from time to time during the past 15 or 20 years, beef cow numbers have showed a steady increase. Leaders in the cattle industry believe that now is the time to stabilize herds and stop this over-all trend upward. It is recommended that producers cull cow herds at least 5 percent and put a few of their good heifer calves back in the herd. By the time these calves are in production as brood cows we will have an increased population to help absorb some of the meat supply.

Good Practices

Both of the above recommendations of the American National are just good feeding and management practices. Cow herds should be culled annually on production, with poor producers being eliminated from the herd. Records in the New York performance testing program show that the bottom 10 to 15 percent of the cows in many herds wean calves that are 90 to 100 pounds below the average of the herd at 7 to 8 months of age, and as much as 175 to 200 pounds below the cows in the top 10 to 15 percent. This would be a good year to get rid of some of those poor producers and replace them with some good heifers out of some of your best cows.

The Market Development Committee for New York State is composed of the following: Owen Boyd, Amenia, chairman; Peter Comerford, Albany; Gordon Conklin, Ithaca; Eugene Hayden, Olean; Ralph Higley, Buffalo; George C. Moore, Geneva; Murray Pulver, Gasport; Robert Rector, Ithaca; Douglas Seholm, Galway; Dale Werth, Cohocton; and M. D. Lacy, Ithaca. This committee represents producers, credit, marketing, the press, State Department of Agriculture and Markets, and Extension. The Committee would welcome your ideas and suggestions.

Although New York is not a major beef-producing state, some individuals in New York have just as much at stake in the cattle situation as full-time producers farther west. Certainly anyone selling beef cattle is interested in the price level. Producers who follow the recommendations of this Committee mainly in marketing cattle when they reach their desired grade, and in the case of breeding herds cull their females and rid themselves of the poor producers, will not only be assisting in the over-all betterment of the cattle situation, but will also be on the road to a sound beef feeding, breeding, and management program.

* Cornell University, Ithaca, N.Y.

Making hay is less of a challenge with these MF weather beaters.

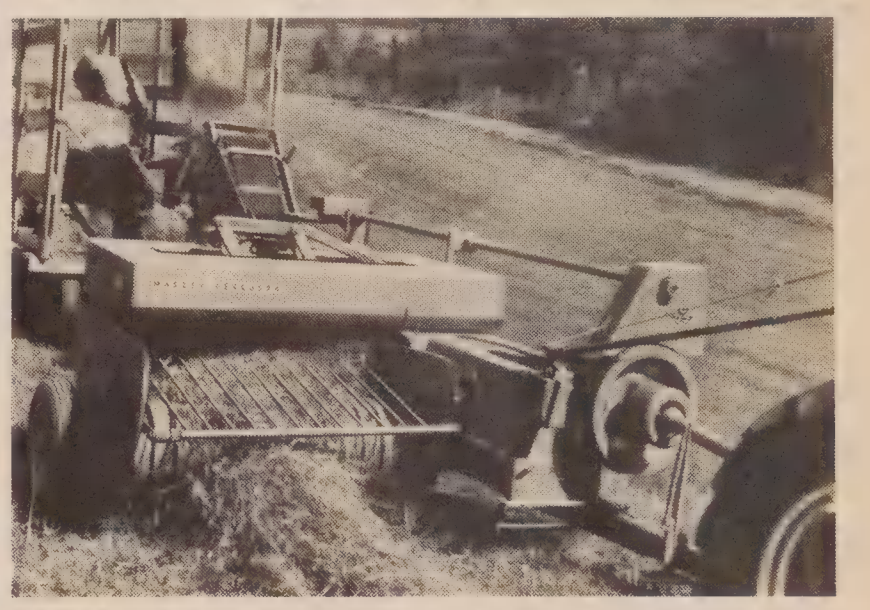
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Take a closer look at

MASSEY-FERGUSON THE CHALLENGERS

Massey-Ferguson Inc., Des Moines, Iowa

ALFALFA WEEVIL . . . 1968 MODEL



by Arthur A. Muka and George G. Gyrisco*

ALFALFA is queen of the forage crops and has the highest yield potential of any forage legume grown in the Northeast. It is an excellent feed, without a good substitute in the forage crop program on many farms.

While the alfalfa weevil adds to alfalfa production costs, it may indirectly encourage growers to be satisfied only with really high-producing stands of alfalfa. Thin, uneven stands may not justify any effort at weevil control, because the return on a 20 percent stand will not offset the weevil control cost.

Moving Line

Each year the line of first-time economic weevil damage moves farther north. Economic damage is defined as severe enough that the cost of treating for weevil control will have to be offset by the improved yield and quality of the alfalfa produced. Under severe infestations, if a grower does not control the weevil he suffers severe yield and quality reductions . . . and may even lose his stand. In such a case the cost of treatment would have been repaid many times over.

1967 Situation

The insect caused economic damage for the first time in New York as far north as a line drawn roughly from Jamestown to Utica. As in the spring of 1966, the weather was abnormal . . . characterized by a series of hot and cold periods rather than a gradual warming trend.

This type of spring causes the female weevil to deposit her egg clusters in the alfalfa stems sporadically, and only during the warm periods. The long egg-laying period in turn causes the larvae (worms which hatch from the eggs) to hatch out over a long period. A prolonged worm hatch means that at least two spray treatments will be necessary to obtain adequate control. If spring were to progress normally, the egg laying would be accomplished over a brief period and all the larvae may be killed with one properly-timed spray.

Nevertheless, growers who took the time to study the insect, its life cycle and control were successful in controlling the pest at a minimum cost and with minimum crop loss. There were a number of alfalfa producers who sustained serious crop loss because they were not convinced that the weevil was really a threat to **their** crops.

There are at the disposal of dairymen in each northeastern county a number of sources of weevil information, such as the Cooperative Extension Agent, commercial fieldmen, and specialists from the Land Grant Colleges. The chemicals recommended in 1967 performed adequately where and when properly applied. Growers in many cases put on their own sprays; others hired neighbors, an aerial applicator, or companies with ground rigs.

In 1968

It is anticipated that the economic damage line will continue to move northward, and that the Mohawk Valley and Central Plains regions of New York will have a large percentage of fields which will require treatment. Most growers will need a two-spray sequence to obtain adequate weevil control.

If a grower is on a two-cut system, it is most likely that the first treatment should be applied well before a normal first-cutting date to kill the adult weevils and insure a maximum yield and quality from first cutting. If some late-hatching weevils are present at first cutting, then a stubble spray is desirable. If many weevil larvae are present, the stubble should be treated as soon as the hay is off . . . if not, one could wait 10 to 14 days until 4 to 6 inches of new growth appears and then spray to control both the remaining weevil larvae and also leafhoppers.

If a three-cut system is used, the first cutting may be taken off before the larvae are numerous enough to be a problem. Than an **immediate** stubble spray, followed 10 to 14 days later with a clean-up weevil spray and leafhopper protection, would probably be needed. An important point to remember is that, if there is a heavy larval population at first cutting, the stubble must be treated just as soon as the hay is removed or feeding larvae will stop any regrowth and may kill the stand!

When to Spray

Spray timing is probably the most difficult decision of the entire weevil control program. Spraying too soon wastes spray and money; spraying too late causes excess yield and quality losses. The ideal spray timing is determined by weekly observations of the fields. Treat when 2 to 3 out of every 4 plant tips show feeding injury in the opening leaves at the tip of each stem.

It is possible that, even in the areas of the region where treatment has been necessary for the last few years, some fields may have only a few larvae and need not be treated. It is also true that all the fields on a single farm . . . particularly if widely separated from each other in terms of evaluation . . . may not be ready to treat the same day. There is just no good substitute for frequent checking.

WEEVIL ROUNDUP

Extension Entomologist Milton Savos of the University of Connecticut comments that alfalfa weevil control recommendations for southern New England (Massachusetts, Rhode Island, and Connecticut) will be the same as for 1967, with the possible exception that Sevin will be added to the list of materials. In addition to Sevin, there will be:

Malathion
Methoxychlor
Diazinon
Guthion
Malathion plus methoxychlor
Methoxychlor plus Diazinon

In Vermont, entomologist George MacCollom recommends (in order of preference):

Methoxychlor plus Diazinon
Methoxychlor plus malathion
Guthion (stubble spray only)

Pennsylvania specialist L. Adams lists these recommended materials for the Keystone State:

Methyl parathion
Parathion (the ethyl form)
Malathion plus methoxychlor
Diazinon plus malathion
Guthion
Malathion

The Pennsylvania people are pushing **two** applications on first cutting, if needed. None of these materials has a long residual, and an early application may "wear out" before the first cut is made. Malathion by itself is a good "holder" just before harvest . . . lasting 5 to 7 days. Another idea being promoted by Keystone State entomologists is a stubble treatment within 24 to 48 hours after first cutting, so the weevil doesn't chomp up the newly-developing buds.

Read the labels on the insecticide containers carefully!

Recommendations by Department of Entomology, Cornell University

Insects and timing of treatment	Chemical	Rate per acre in lbs of active ingredients	Tolerance in ppm	Remarks
ALFALFA INSECTS **Alfalfa Weevil** Treat when 50–75% of alfalfa tips show some injury, or if tall enough, harvest and treat stubble as needed. Follow with second application in 7 to 10 days	methoxychlor	1.5	100	Wait 7 days before feeding or cutting hay.
	plus malathion	1.25	135	
	carbaryl (Sevin)	1–1.5	100	No waiting period before feeding. Very toxic to bees. May be phytotoxic.
	methoxychlor	1.5	100	Wait 7 days before feeding or cutting hay.
	methoxychlor	0.8–1.2	100	Must wait 7 days before feeding or cutting hay. May be phytotoxic.
	plus Diazinon	0.4–0.6	40	
	Diazinon	1.5	40 on fresh alfalfa, 10 on hay	Do not treat during bloom. Do not graze livestock for 2 days following last application. Do not cut hay for 10 days after which time it may be fed to livestock. May be phytotoxic.
	malathion	1.25	135	No waiting period before feeding. May be grazed or harvested on day of application.
	parathion	0.5	1.0	Wait 15 days before feeding or harvesting. Highly toxic to human beings. Must be applied only by a trained operator. May be phytotoxic.
	methyl parathion	1.0	1.0	Same as parathion.

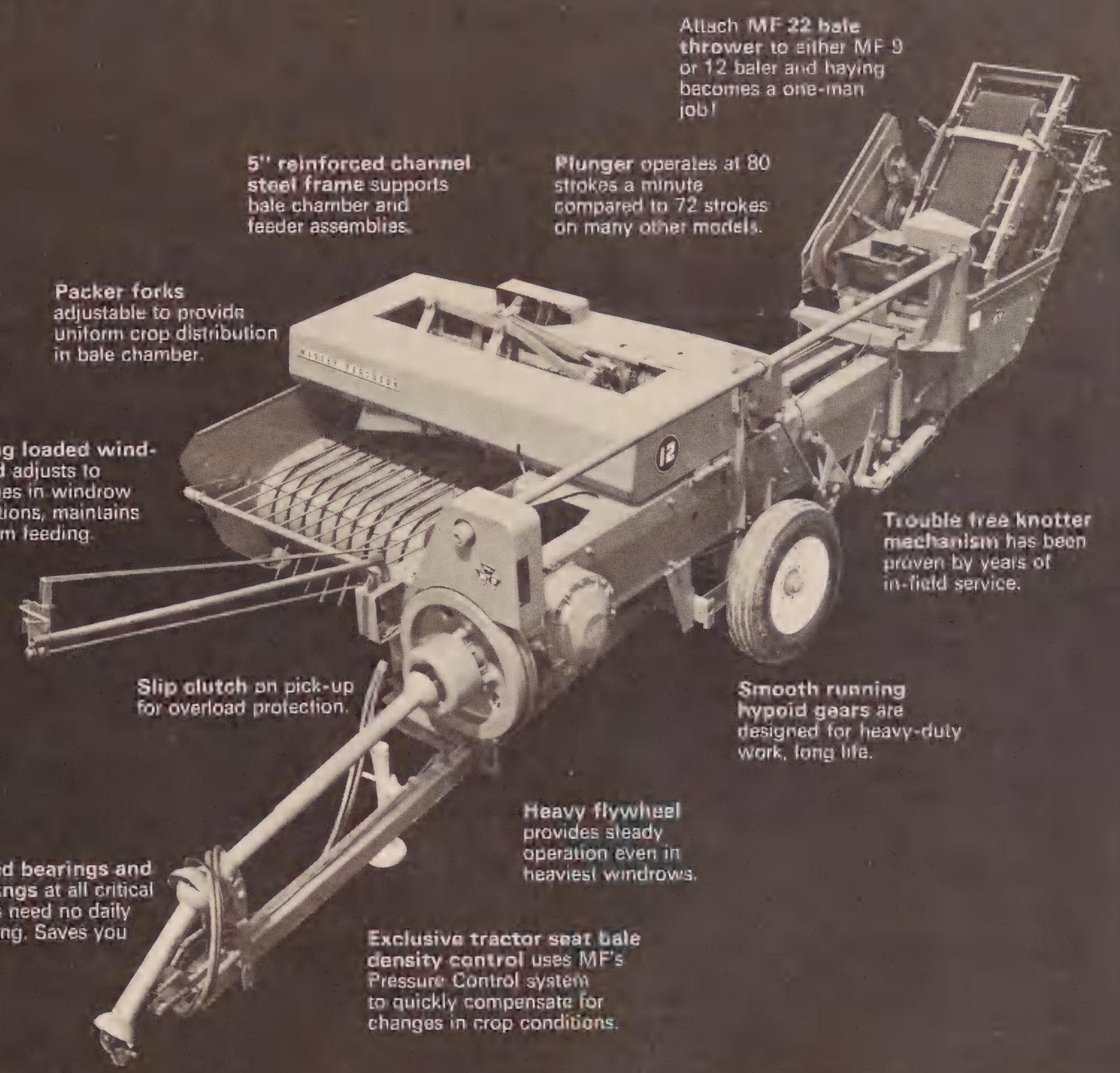


*Entomologists, Cornell University

You would expect to pay $100 more for a baler with these features!

The MF 12 is designed for the man who wants to do high speed baling *without* daily greasing. You make 15,000 bales between greasings. (Only the grease fittings on the pto shaft need a shot every 50 hours.) The wide 56" pick-up handles heavy windrows easily. You'll make a bale every 10 seconds . . . up to 14 tons an hour. If you are interested in extra savings, we also make the MF 9—a high speed economy model. Your MF dealer will be happy to accept the challenge of giving you a rock bottom quote on either one.

Here's why the MF 12 is one of the most dependable balers you can buy!



Take a closer look at

MASSEY-FERGUSON THE CHALLENGERS

Massey-Ferguson Inc., Des Moines, Iowa

Cornfields

(Continued from page 12)

if you want corn off to a flying start, put it in as shallow as conditions warrant.

Corn matures from three to seven days quicker if the starter fertilizer put down with the seed is high in phosphorous. For instance, Lucien Paquette, county agent in Addison County (Vermont) recommends 100 pounds per acre of 18-46-0 on the clay soils of that area . . . the "46" representing phosphorous.

Split Boot

Interestingly enough, we've come full circle on putting some fertilizer in with the seed . . . and the latest thing is for some farmers to go back to the old split-boot practice of running **a little** "pop up" or "starter" fertilizer right around the seed. One farmer reports good results with 50 pounds per acre of 6-24-12 used in this manner.

The rest of the fertilizer, of course, is plowed down, harrowed in, or put on by the planter to the side and below the seed. Here and there a farmer still split-boots **a lot** of fertilizer around the seed . . . and burns the emerging seedlings seriously.

Probably the most common limitation to top corn yields in the Northeast is inadequate fertilizer. Corn is a real hog at the plant nutrient trough, but remember that the cost of fertilizer has increased less than most everything else farmers buy. Fertilizer prescriptions depend heavily on type of soil, previous crop, and whether manure was added...so a soil test is vital for deciding how best to handle a particular field.

In the process of soil testing, the soil pH will be checked (should be at least 6.5) . . . a mountain of fertilizer has been locked up by the soils on low-pH fields over the years! Very generally, a cornfield without manure calls for adding 80 to 120 pounds of nitrogen, 40 to 60 pounds of phosphorous, and 40 to 60 pounds of potash.

A whole flock of corn herbicides are available, with the latest development being commercial mixtures of two or more different chemicals. One combination that's been exciting college research workers is a mixture of Atrazine, 2,4-D, and spray oil . . . not yet officially recommended, by the way. Like everything else, you need to analyze **your** weed problem and then pick the herbicide, or combination of herbicides, designed to meet your situation.

Another recent development is the herbicide-fertilizer combination. Applying a weedkiller with liquid fertilizer can save a trip across the field. Follow the herbicide label carefully . . . if it says don't mix with fertilizer, you'd better believe it!

Generally, herbicides that are recommended for application before planting and are plowed down or disked in can be combined with pre-plant fertilizer. Liquid potassium (K) and phosphorous (P) fertilizers lose their effectiveness if combined with pre- or post-emergence herbicides . . . because K and P should be incorporated in the soil so they're available to roots. Nitrogen solutions, though, work well with pre- or post-emergence weed killers if the mixture is applied no later than the spike stage.

An increasing threat to northeastern corn growers is the northern corn rootworm . . . the critter whose larval (worm) form chomps up corn roots, and the adult (beetle) chews on the silks. Watch for "goose-necked" stalks (ones with part of the stalk on the ground, but not broken), and look for larvae in roots that are bad and broken at the tip. It's not widespread in the region as yet . . . at least not widespread on a commercially-damaging scale . . . but keep it in mind. Diazinon and Thimet are among the recommended insecticides; your county agent can be specific for your area.

After a series of dry years . . . and then 1967's cold, wet spring . . . 1968 should be the Year of the Cornstalk, as the Chinese would say. If corn growers just do as well as they know how, it should be a banner corn year! — *GLC*

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How to find the trouble in...

OVERHEATED TRACTORS

by Wes Thomas

A TRACTOR engine converts about one-third of the total energy in each gallon of fuel into useful work. The other two-thirds is converted to heat which must be eliminated by the exhaust and cooling systems.

This fact was taken into account when tractor manufacturers designed the cooling system, so that they can provide enough capacity to do the job properly. Therefore, if your tractor overheats, the capacity of the cooling system to remove the heat has somehow been reduced, or too much of the total energy is being converted to heat and not enough to useful work.

Checkup

In most cases a quick inspection will reveal the cause. Sometimes, however, the reason is more obscure, and detailed checking is required:

Liquid . . . Liquid in the cooling system must be at the proper level. Although it may be necessary occasionally to add water, if water must be added regularly it's a tipoff that the system is not working properly.

Fan belt . . . The fan belt must be in good condition, and tight enough to drive the generator and water pump without slipping. However, it should not be adjusted too tight, because the extra load imposed on the bearings causes additional wear.

Radiator hoses . . . Radiator hoses often flake off on the inside, as well as become soft with age. Therefore, a regular schedule of hose replacement should be followed to avoid this internal flaking.

Oil level . . . Crankcase oil should be up to the recommended level. In addition to providing lubrication, the oil helps carry away heat from the working parts of the engine. Thus, low oil level slows this cooling process.

Brakes . . . The brakes should be adjusted so that they are fully released when there is no pressure on the foot pedal. If the brakes are dragging even slightly, they impose a continuous drag which adds to the load on the engine.

Radiator parts . . . To permit adequate flow of cooling air, the air passages in the radiator core must be open. Accumulated debris should be brushed from the core or blown out from the reverse side by use of water or compressed air. To reduce future accumulation, a screen can be added to the outside of the grill where it can be easily cleaned.

Internal passages in the radiator must be open to permit adequate flow of the cooling liquid. If these passages have become partially clogged, they can often be opened by use of a radiator-cleaning compound. Be sure to follow directions exactly when using such a compound, otherwise, you may cause severe damage to parts of the cooling system.

Thermostat . . . The cooling-system thermostat must open at the proper temperature. Action of the thermostat can be checked by immersing it in water along with a high-range thermometer. Then heat the water and watch the thermostat to see if it opens at the right temperature.

Relief valve . . . To maintain the proper pressure in the cooling system, a relief valve is included in the radiator cap. If the valve seal is leaking, or if there are other conditions which prevent the pressure from building up, the effectiveness of the cooling system is reduced.

Temperature gauge . . . If the tractor shows none of the usual symptoms of overheating, the temperature gauge may be giving a wrong reading. Check-out of gauge operation is normally a job for your dealer's service department.

Bunker

(Continued from page 16)

of the bunker.

To hold down the plastic cover, the Randalls strategically placed on it round, smooth stones from a nearby gravel pit. As with Byrns and LaVack, a tractor-mounted front-end loader is used here for moving silage out of the stack to the 70-cow herd. Mike started feeding from the stack on September 20, and had it cleaned out early in December (whereupon he switched to his 14×48 upright for a silage supply). Fred had cleaned out his bunker at Christmas time, but Dick had a supply of bunker-silage to last until March.

Money-maker, many ways!

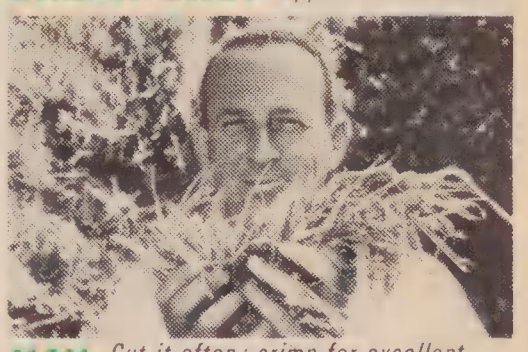




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Doc Mettler Comments On:

HEAVY CORN FEEDING

AT this time of year all eyes, thoughts and hopes look forward. No matter what kind of winter we had it was long enough, and the smell of a newly-turned furrow puts vitality into a man's spirit.

But let's look back a bit before making plans for a new season. Are you considering going into an all-corn silage, or nearly all-corn diet for your herd, rather than fight the alfalfa weevil battle another year? If you are, you might be interested in what we have seen here in eastern New York and western Massachusetts, where a large number of our farms are on an all-corn or nearly all-corn diet for cows. I'm not going to enter into any discussion of the economics of the change, but will confine myself to observations of the health and well-being of the cows on this type of feeding.

My observations are not those of a trained research man observing a controlled experiment. All I have done is to keep my eyes and ears open and ask my clients a few questions. The idea of growing and feeding all-corn silage as the only roughage must be working out satisfactorily since the trend each year has been to plant more corn, take better care of it, build more silos, and storage facilities, and more feeding and handling facilities for silage.

From the hired man's point of view (even though today this most important man in agriculture is known as herdsman, barn man, calf man, or tractor man) all-corn silage is a great way to feed. It certainly is easier to handle than bales, and it doesn't have the odor problem the old grass silage used to have. He is not as tired at night, so he feels more like going bowling. He doesn't carry a bad smell in from the barn, so his wife doesn't make him leave all his clothes hanging in the cold entryway as she used to. I realize the foregoing doesn't have much to do with veterinary medicine, but long ago I learned that the veterinarian's success on a farm often depended on the attitude of the help on the farm. Anything that can make a farm hand's life easier or more enjoyable is eventually reflected in the way the cows are cared for. Well-cared-for cows don't get sick as often and when sick are noticed sooner, and of course get better sooner.

No Sudden Change

The farms where the corn diet has been the most successful didn't make the change suddenly. I presume that this has something to do with the fact that a cow's rumen bacteria must change to accommodate the different types of fodder. If soft corn (high-moisture corn) is used, this seems to be very important. A few years ago when a lot of our clients fed government corn we saw violent indigestions when all of the alloted corn was fed at one feeding. If the same number of pounds of corn was spread out over two or three feedings, indigestion did not occur.

We have seen cows, particularly when the change from conventional feeding to all-corn was first made, that got so much corn they wouldn't eat their regular grain. In one herd last fall it looked as though the whole herd had acetonemia, but the urine test for acetonemia was negative. They were getting all the excellent corn silage they could hold at a bunk feeder. They were getting a large feeding of soft corn at the bunk, and then when they came in the barn they wouldn't clean up their dairy ration. We tried everything from vitamins to tonics, and couldn't change anything. Then we began to realize that the milk weights on these "off feed" cows were about as good as other years. The amount of soft corn was cut down a little, as was the grain fed. In the meantime, the cows (or their bacteria) got used to the whole setup and by early winter they were doing fine.

I have never felt that it was the veterinarian's duty to tell a farmer what and how to feed his cows. Most of us just don't have the background and newer knowledge of nutrition to do any more than confuse a farmer. There are certain things, however, that seem more important when feeding all corn. Added vitamins and minerals seem to be more necessary. Last fall, under the advice of nutritionists, we advised clients to use vitamin A, D and E injections, or feed A and D vitamins in their mineral mixtures. Without trying to do so this turned into a controlled experiment in many herds.

Some of our herds were completely injected with A, D and E in November, and again in late winter. We didn't learn much from these, for even though they seemed to have less-retained placenta, less milk fever and acetonemia, perhaps they were simply going through a good year. In quite a few herds the A, D and E injections were given only to dry cows. Inadvertantly a few cows were missed. It happened too often to be a coincidence that the cows that had A, D and E six weeks before freshening came in with no trouble. Cows that got milk fever, retained their placentas, or got severe acetonemia often were the ones that were skipped.

Eat More Outside

Some dairymen told me that they just couldn't get enough silage into their cows. This seemed to be when the silage was fed inside. I feel that cows will eat more silage at an outside bunk. However, in many herds where they are fed inside and the barn is cool and well-ventilated, their appetite for silage up to eighty pounds or more a day was satisfactory. Silo unloaders and self-propelled silage carts fluff the silage up more, and cows seem to like it better.

We have not seen any problems in corn silage feeding that could be blamed on urea added to the silage. In one herd where too much urea was added by mistake, to the point where a handful of silage pressed to the nose would cause you to cough, the cows did not eat it too well. The herdsman found that if he piled it along the wall for a few hours to let it air out the cows ate it better.

In general, cows seemed to eat silage better when it was made of corn before it got too dry, hard, and frozen. This was true even in sealed storage silos. I understand there is more value in the late-cut silage, but if the cows don't like it as well and won't eat enough of it, then what?

All in all, as a veterinarian I have seen no specific problems from feeding all-corn silage, or all-corn silage and soft corn exclusively, as long as cows receive additional vitamins, protein and minerals, and change does not take place too quickly. I would not want to be the one to change anyone's way of farming, but it does seem to be an easier way of doing things. If you are thinking of planting more corn this spring, go right ahead. Anything that will make farming a little easier for both the hired man and the cow, while returning a profit to the owner, is worth trying.

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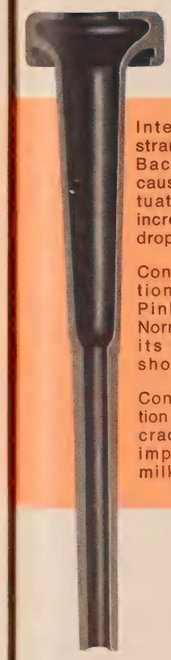


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DAIRY R & D

A new Research and Development Division has been organized within the American Dairy Association to prepare for a greatly-expanded research effort. The R & D Division was recommended by the special committee now studying the organization and functions of the American Dairy Association. G.G. Quackenbush, director of market research for American Dairy Association since 1960, has been named as director of the new Division.

Initial efforts of the new Division will be in the area of concept analysis. This will involve detailed studies of consumer attitudes toward present dairy products . . . what consumers like as well as what they dislike about these products. Such research will provide the basis for improving present products, and will also provide guidance in the area of encouraging new product development.

LIQUID MANURE

International Harvester Company has just released a new planning and operating guide for liquid manure systems.

Available through local International farm equipment dealers, the 16-page illustrated, descriptive booklet is designed to help a farmer plan and operate a system to meet his particular conditions and requirements.

Divided into three sections, the booklet concerns itself with benefits, storage and management.

BARLEY

The Tschermak variety of barley, imported by Rutgers' scientists from Austria, has proven itself a superior malting grain. New Jersey growers received a 40 cent per bushel premium over feed barley prices in 1967, plus another 10 cents for a storage allowance.

A crop of 60,000 bushels was produced in the Garden State last year, at an average price of around $1.45 per bushel . . . and production is slated to rise considerably this year. The New Jersey Agricultural Marketing Association Cooperative, sponsored by the Farm Bureau, is studying the possibility of marketing malting barley

Plant breeders in New York State have also been busy working on the development of a malting barley adapted to the Empire State . . . and results are encouraging.



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WASTE DISPOSAL BLUES

by Edmund N. Moot

THE PROBLEM of waste disposal has brought rural and metropolitan areas closer together. Modern packages for all food products, except the fresh fruit and vegetable counter items, make for an added volume of waste in every home . . . urban or rural. No kitchen garbage disposal unit can properly transform waste items into a soluble state which will be absorbed in either sewage systems or septic tanks, especially in most rural and some suburban sections.

So-called consolidated garbage disposal systems, whether managed by a municipality or by private ownership under a franchise program, involve the use of land, usually classified as rural and some distance from the heavily-populated area. Every municipal unit, whether metropolitan in nature or one which gives service to a small rural village, has certain fixed problems to solve before a location is approved by all parties concerned under existing laws.

Accessibility is perhaps the first hurdle to negotiate. The family car and small trucks can reach an area more isolated than can a modern waste-disposal truck.

Pollution and disposal are two terms which dog the path of progress that man makes across the face of his own geologic region. When waste disposal pollutes either water or the atmosphere around a landfill, opposition rises from all sources. Scars on the landscape are detected more readily by property owners close to a disposal area than is the case of those who see the place only when necessary to dispose of accumulated waste.

There are those who envision a megolopolis allalong the Eastern Seaboard by the year 2000. If that should be the case, it is inevitable that many sections of rural landscape will be altered, scarred, or transformed by landfills. There is sound basis for the argument by rural property owners that an unmanaged disposal site reduces nearby property values.

Some of our readers report that an almost total property devaluation has been forced on those areas close to this type of land use. Cobleskill, New York, has a large village disposal area close to the famous fairgrounds. The enormous pressure developed under hundreds of tons of waste material on a limited space has been known to cause an internal combustion . . . followed by lots of smoke.

R.P.I. Professor William W. Shuster in Troy, New York, indicated in the public press recently that new methods now under development could (through partial and controlled combustion) reduce greatly the total bulk of waste materials which now overflow the limited landfill areas in all regions. He reported that it was evident, from present research, that cities could make money on future recovery methods.

Sell It

Schenectady, New York, has been processing waste for years in its Bureau of Sewage treatment on Anthony Street in the Electric City. A by-product of this reduction method is on the market known as Orgro. This product has sold to the tune of over 50,000 bags since the treatment system began.

Rural land use planners are concerned about the unmanaged landfill which suddenly appears on the rural landscape. There must be a close working relationship between the governing bodies of a small city or rural village and the surrounding township if scars on the rural scene do not develop public eyesores. These disposal areas may breed rats, pollute the water source, and spread harmful smoke fumes. However, proper location and management of disposal areas, perhaps on a cooperative basis between several municipal regions, enhances the beauty of rural sections.

Tickets Issued

Some political units have issued small admission stickers for a man-managed landfill. This rules out the "free lancer" who runs to the nearest "dump" available when he wants to burn up some excess tires or throw away the refuse accumulated when his wife installs a new kitchen unit.

I have closely observed an uncontrolled disposal area for a few years. The traffic, even though the landfill is posted as admitting citizens of a certain political unit, came from many miles around . . . ten different villages, three counties, and two small cities. The worst offense we noted was this past summer . . . dumping a litter of five small kittens to become wild or starve.



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Feeders

(Continued from page 14)

least complex and complete systems can be obtained by arranging the feeder around the silo. Here the feed bunk is constructed against the base of the silo. At least two mechanisms are available to distribute silage around the silo's base . . . circular motion of the entire feeding assembly, or a gutter cleaner arrangement transporting silage around the circumference.

Primary advantage of this arrangement is simplicity and low power requirements . . . about 1.5 to 2 hp. A circular arrangement also allows more cattle to feed in relation to the length of bunk.

Limitations are lack of flexibility in feeding different rations to more than one bunch of cattle; inability to expand capacity; and working in the feedlot while filling the silo.

Swinging Auger – In this arrangement, an elevated, horizontal auger swings around a central post conveying feed to a circular feed bunk. At the feedbunk end, an elevated track supports the auger. A separate, small electric motor moves the outer end of the auger along the track.

The overhead auger is long enough so the required curvature of the feed bunk permits cattle to eat from either side of the bunk. The bunk can extend over three-fourths of a circle, leaving the remaining one-fourth of the circle for a building and for space so the cattle can enter.

A separate auger is required to deliver the feed to the inner end of the swinging auger. At the outer end the feed drops by gravity through a flexible spout into the bunk. The 50-foot horizontal auger, when arranged as three-fourths of a circle, can supply a feed bunk 225 feet long.

The small swing-motor at the outer end of the auger is reversed by a switch which is tripped by a small stop attached to the overhead track. The blocks can be positioned to limit the swing to any desired portion of the bunk. By properly setting the blocks, the auger can deliver feed separately to two different lots along the feeder.

Concentrate can be metered into the swinging auger along with the silage, or the silage can be distributed first . . . followed by concentrate spread separately.

Primary advantages of this type outfit is the length of bunk that can be filled in relation to the length of the auger. This arrangement reduces power requirements. A 3 hp motor powers the auger, while a 1/4 hp motor moves the outer end along the track.

Expansion of capacity is very easy up to the three-fourths of a circle length of bunk. No machinery is added . . . only the bunk and the overhead track.

The primary limitation is restricting the length of the circular bunk to three-fourths of a circle. If additional length beyond this is needed, it is impractical to add it to this type outfit.

Tapered Bed Conveyor – In this arrangement, chain-driven slats drag the feed along a smooth bed. The conveyor bed . . . (distributor board) tapers from full width at the supply end down to zero at the far end.

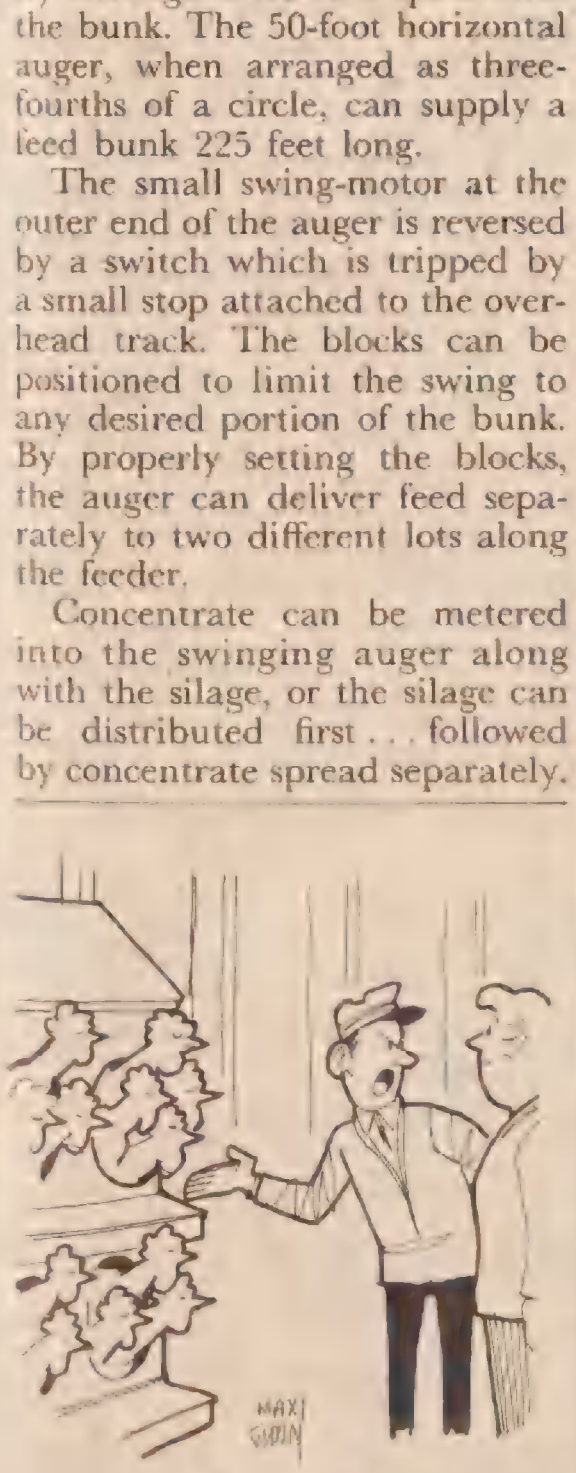
As the silage slides along the surface of the bed, it drops over the edge into the bunk feeder. Since the feed slides along the board, there is little separation, and feed is distributed over the full length of the bunk almost simultaneously.

Power requirements are relatively low. A 1 horsepower motor is adequate for 60 to 80 feet of bunk length.

This unit is arranged so it can be readily dismantled into 10-foot lengths and moved. Thus it is suitable for use in temporary bunks.

Self-Propelled – One quite recent development is a self-propelled bunk feeder with an unusually low power requirement (one-half hp motor for 150 feet). Its feeder, half as long as the bunk, travels back and forth to carry feed to the entire system. Other good points are simplicity of design, and no separation of coarse and fine materials.

Belt Feeder – An even more recent development is a belt feeder from which a "plow" (powered by a ¼ H.P. motor) scrapes silage over the side to a bunk below. An advantage . . . no vibration or mixing to separate coarse and fine feed components.



"A clear cut case of feather bedding."

American Agriculturist, April, 1968

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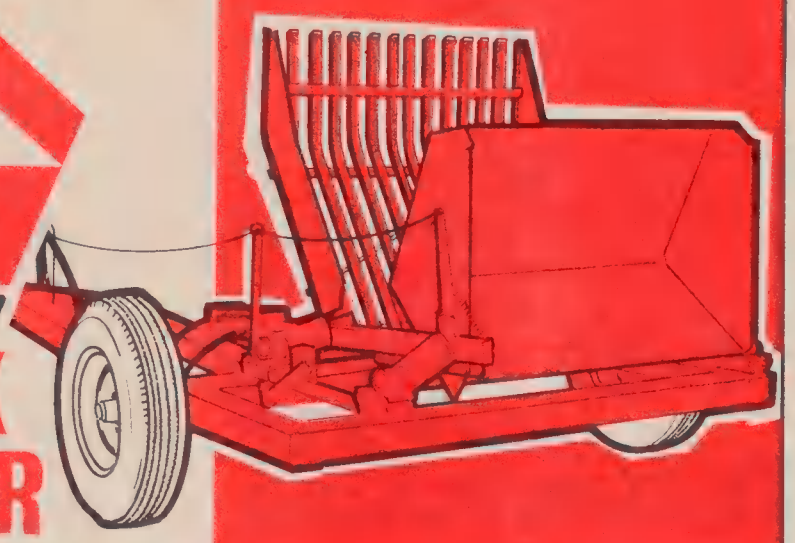
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HANDY HELPS



Chute — A wagon-loading chute for silage allows the driver to keep away from the silo and prevents tearing off the switchbox and wiring to the unloader. The chute is made of sheet metal mounted on a welded framework of angle, flat iron, and pipe. It is hinged so it can be folded up, and is raised by rope and pulley.



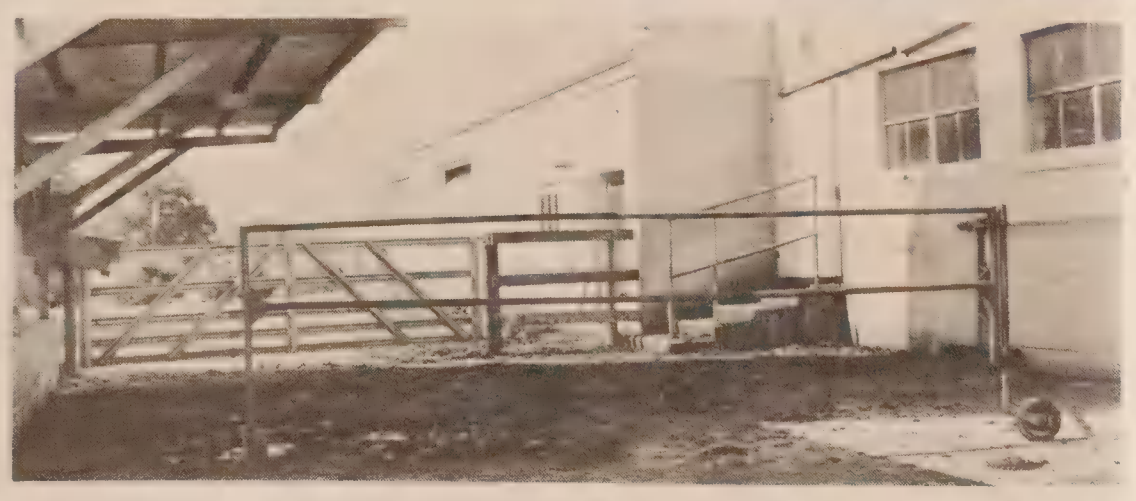
Handy Anvil — A length of heavy angle iron spiked to the edge of the workbench is handy as an anvil for straightening rods, pipe, and nails.



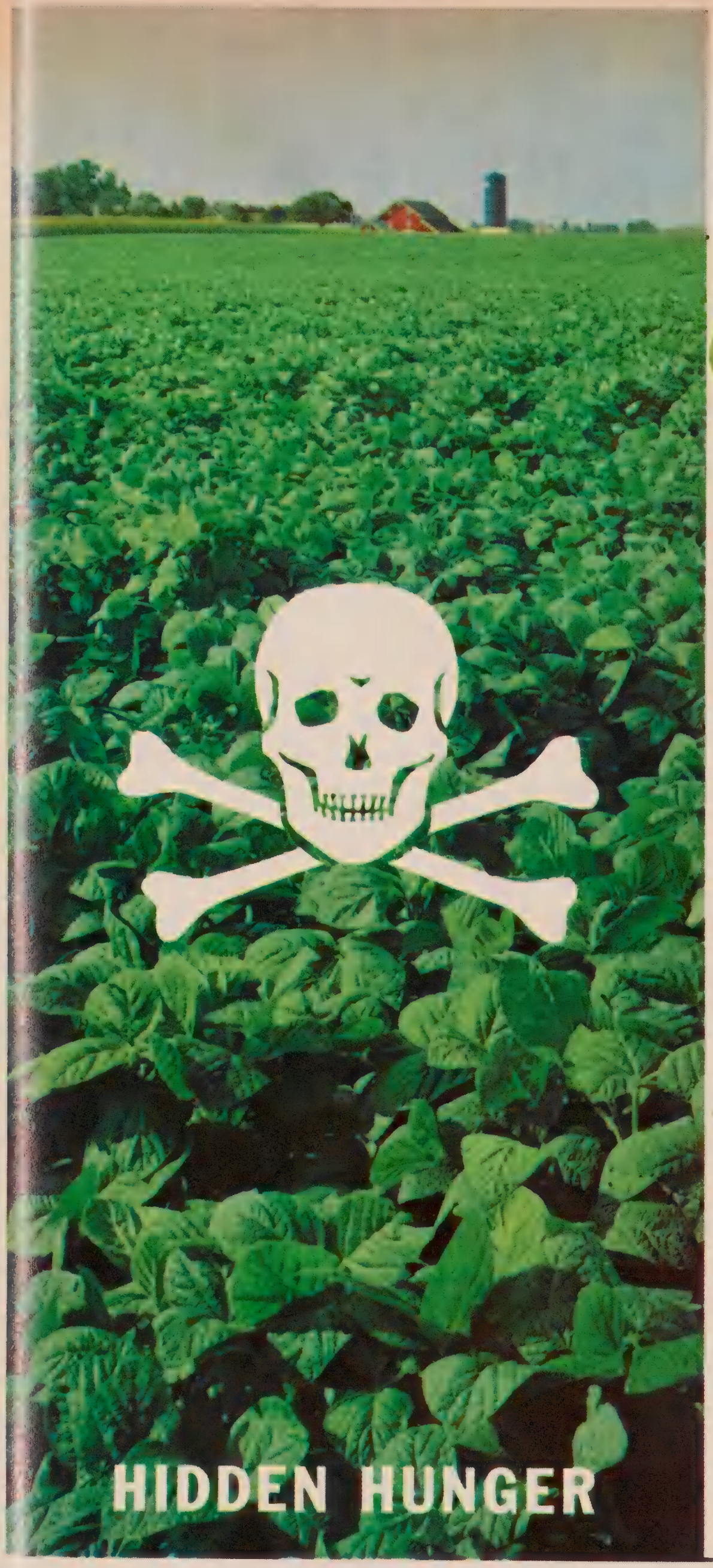
Hoist — This shop-hoist is homemade. It has considerable movement with its four casters and the full width that the differential hoist can travel along the I-beam on which it is mounted. The legs and bracing are heavy welded pipe. It is handy for positioning tractor-mounted equipment, pulling motors, and unloading or loading into trucks.

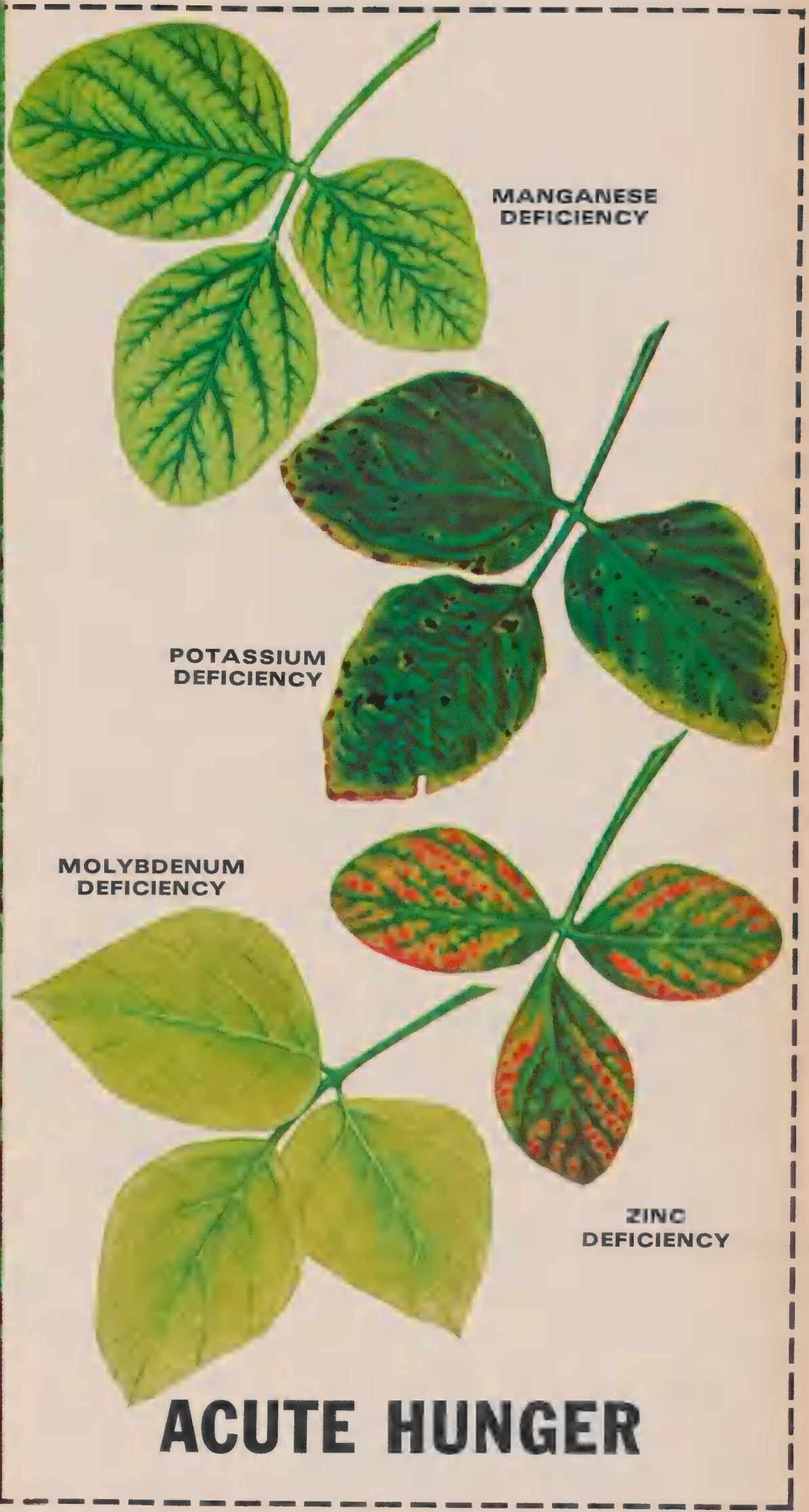


Double-Barrelled — Here is a handy shop furnace made from two connected 55-gallon oil drums. The lower one holds the wood or coal fire and has a full-front door which is hung from the top. The furnace is mounted on four angle irons which space and hold it above the concrete floor of the farm shop. The stove pipe is fitted with a damper and is located at the front of the upper drum.



Movable Pen — A pair of long pipe-framed gates, hinged together and fastened at one end to the milking parlor, are mounted on wheels. They form the side of a holding pen where the cows wait their turn to go into the milking parlor. When not in use the gates can be pushed back flat against the building.





Get healthy soybean profits with BONANZA!

You can't see hidden hunger in soybeans. Most soil tests can't tell you about it, either. But, you'll know at harvest time . . . when your yields, quality and profits are *down*. You can protect your soybeans from hidden hunger . . . and acute hunger . . . with Royster BONANZA.

Scientifically formulated for *your* area, Royster BONANZA contains all 13 primary plant foods, secondary plant foods and vital Trace Elements your crops must have for top yields, highest quality and biggest profits. None of these 13 plant food elements can substitute for another; your soybeans need them *all* . . . and get them with BONANZA.

BONANZA's exclusive formulation of Trace Elements resists both leaching and becoming fixed in the soil . . . making them available in the root zone all through the growing season.

See your Royster dealer for BONANZA, bag or bulk . . . or Royster Nitrogen, solid or solution. See him for custom application or the equipment to do it yourself. See your Royster dealer for soil testing and fertilizer recommendations. Your Royster dealer is a good man. When it comes to fertilizer, he knows his business . . . and *yours*.

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NEW JERSEY NEWS

by Amos Kirby

THE BEST TIME to apply controls for the alfalfa weevil in New Jersey for 1968 are:

When 50 to 75 percent of the terminal growth (tips) show signs of larval feeding. Do not wait until 50 percent of the tips are severely injured.

When a light silvering of the terminal growth is evident as the field is viewed from a short distance.

If these conditions exist ten days or more before first cutting, controls should be applied. On the other hand, if weevil injury is delayed until one week before harvest, the grower may wish to cut early and treat the stubble.

Inspect plants for signs of larval feeding as soon as there are four inches of growth. Normally this means about the first of April in South Jersey, and mid-April in North Jersey.

Five recommended materials for control are: methyl parathion, methoxychlor and malathion, methoxychlor and Diazinon, Guthion, and parathion. Be sure to follow the instructions of the agricultural agent for your area.

CONCENTRATE FEEDING

The Dairy Department at the College of Agriculture finds that adequate concentrate feeding pays off in both higher milk production and profits. Records from two New Jersey Dairy Herd Improvement Associations prove that it pays to feed concentrates liberally. In a group of 33 herds with an average milk production of 11,042 pounds, the animals were fed 4500 pounds of grain with a feed cost of $314 per cow. The income over feed was $303 per animal.

In the second group of 44 herds, with an annual milk production of 14,906 pounds of milk, the feed consumption was 5900, with a total cost of $37 per animal. The income over feed costs was $460 per cow. In addition to the additional 1400 pounds of concentrates the higher-producing herd consumed an extra 100 pounds of hay equivalent.

While it costs an additional $61 to feed a cow in the higher-producing group, her income over feed cost was $157 above the lower group.

CORN OR SOYBEANS?

In a labor-tight market, should one grow corn or soybeans in 1968? With New Jersey corn yields last year close to 100 bushels per acre and, on a yield basis, less than 30 bushels per acre of soybeans, one is inclined to grow corn.

Dr. William Mitchell, Extension agronomist at the University of Delaware, (where corn and soybeans are both big business) suggests that it might be profitable to rotate the crops.

Conditions in Delaware may be a bit different from New Jersey. In that state there is an immense demand for corn in the broiler industry. Corn yields of 175 bushels per acre are predicted by 1975, based on the upward trend in production. Soybeans have not yet broken through the 25 to 40-bushel range. Further analysis of the Delaware situation reveals that corn has responded to more intensive production practices.

Summing up the situation, Dr. Mitchell has a double answer for the grower who is debating which crop to raise. He says, "For most growers the answer is not corn **or** soybeans, but corn **and** soybeans." This practice will help to balance out the local supply and demand, allow for better use of available land, involves less risk, results in better yields, and, hopefully, produces more profit.

The recommendations from Delaware, where they grow as much as 280,000 acres of soybeans and a substantial amount of corn, might well apply to other areas where both crops can be substituted for high-labor-cost crops.

POPULATION EXPLOSION

There is a bit of light showing up on corn plant population versus the narrow row seeding, which have been widely-debated subjects in recent years.

James R. Justin, specialist in crops, thinks that a plant population of 16,000 to 18,000 is about the limit on the light soils of New Jersey, although with the right kind of soil one might go to 21,000 plants per acre.

The determining factor is moisture. Excellent results were secured in 1967, but there is no guarantee on the rainfall for 1968. But such factors as weed control, moisture, fertilization and total plants appear to be the final answer in securing high yields.

Mr. Justin raises some questions for consideration before shifting to narrow rows on both corn and soybeans:

1. **Will a 4 to 10 percent increase in yield of corn pay for a changeover? (Yield increase for soybeans is likely to be even larger than this).**
2. **Are your yields pushing 95 to 100 bushels per acre year after year?**

(Continued on page 34)



Tons more alfalfa per acre for less than $1.00 worth of new PARTRON™

INSECTICIDE

PARTRON insecticide is a specially formulated methyl parathion. It gives you the fastest and most complete protection. All major foliage insect pests are controlled —Alfalfa weevils, Aphids, Leafhoppers, Spittlebugs, Worms, Plant Bugs, Grasshoppers, Lygus Bugs. With Partron you'll avoid the severe damage caused by alfalfa insects. Alfalfa insects can take 60 to 80% or more of your first cutting. You can't help but gain by using the complete control of PARTRON. Less than $1.00 per acre is a small investment to insure a profitable alfalfa crop.

There's no reason to lose valuable alfalfa when Partron insecticide is so effective and low in cost

With the quick action of PARTRON you'll positively prevent damage and break the life cycle of alfalfa weevils and other destructive alfalfa insects.

The excellent control of PARTRON helps you to reduce following generations of insects. Your control gets much more effective and economical each time you spray. You can easily afford to keep insect populations down when PARTRON costs so little.

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THE GROWING WORLD OF VELSICOL

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HOORAY FOR 4-H!

by Mrs. Ben Keltz*

IT ALL STARTED four years ago when my husband and I were talked into leading a 4-H group in our township. He was to take the agriculture and I the sewing.

Ever teach 10-year-olds to sew? First they learned to sew on a button; sounds easy . . . just thread the needle and sew it on. I got jabbed more times than I care to remember! They called it the "Stitch and Rip Club" . . . it fit!

Then came D-Day . . . learning to operate the sewing machine. They practiced on old strips of cloth. Said one, (I'm sure she believed it, too) "the machine won't sew a straight seam!" After several weeks of practice they were ready (?) to make a gathered skirt. The material was torn to proper size, and then back to the "Monster" (as they referred to it) to sew up the side seam.

Next came the gathering . . . lengthen the stitches and sew three rows of stitching across the top and pull the threads. GENTLY, PLEASE, DON'T BREAK THOSE THREADS! Amid much laughter and many tears...and "My threads broke!" "It doesn't fit!" . . . they stitched and ripped right up till the night before the county fair. Proudly . . . all aglow . . . they modeled their masterpieces on stage, and even won ribbons! I was proud of every one of them; they really stuck with it till the job was done.

Meantime, Friend Husband was having his own troubles. The most popular project was FLOWERS! Now, he knows nothing about flowers, not even the names, much less whether they are annuals, bi-annuals, or perennials! Several boys took lambs, rabbits, vegetables, corn, and pigs. Our two sons took pigs, along with several other boys.

Well, 4-H pigs must be trained to go where you want them to go . . . they call it driving the pig; also, they are to be scrubbed at least once a week. To scrub a pig you must first catch it. This proved to be quite an active sport! Finally they caught the first one and gave it a good scrubbing . . . with shampoo, no less . . . MINE AT THAT! I'll say this. Those were the daintiest-smelling pigs in the county . . . they also used my talcum on them! After the first scrubbing it was easy . . . those pigs loved to be scrubbed. "Brutus" and "Hips" as they named them, would lie down and roll over when they saw a bucket of water coming their way!

Driving them was something else again. They followed the boys like puppies. Well, that just won't do . . . as the county agent said, "We want **you** to take the pig, not the pig take you!"

The Big Day finally arrived . . . load them up and off to the county fair. Sounds so easy! Those pigs (by now weighing about 200 pounds) seemed to know their fate and they weren't walking up that ramp to the truck without a fight. Fight they did. It took our two sons (Benny, 17, Dave, 16) myself . . . well, sure, I had to help . . . my brother, and husband Ben to load them. Squealing, fighting, biting, we finally got them aboard. The county agent had assured us that they would back right up that ramp with buckets over their heads! I'm here to tell you THEY WON'T!

Meantime, I found someone to take over the sewing. After two years the kids knew more than I did. And last year at the Parents' Night meeting Ben and I resigned, hoping some other civic-minded parent would take over.

Another Year

March came and no one would take over, not even friend husband. Yep, you guessed it . . . I couldn't let the kids down, so I took it for another year. I did the best I could, but I'm sure someone else . . . just anybody . . . could have done better. Anyway, the majority of projects turned

(Continued on next page)

*4-H Leader, R.D.2, Saltsburg, Pa.

"I could operate my David Brown for six years on what I saved on the purchase price alone."

"Customers like John Sanderson are our best salesmen."



Mr. John Sanderson
Sandy Creek, New York

"I saved over $1,000 on the purchase price of my David Brown 1200 over the price of a competitive model. And that was only the beginning . . . it uses one-third less fuel than another model I own, and I've yet to have a repair problem. It's just an all around great tractor. After seeing mine in operation, a neighbor bought a David Brown without even driving it. Compared to my other make tractor it handles like a car. I expect to trade my other model on a David Brown 990 soon."



Mr. H. D. Buck (and Son, Larry)
Mr. E. A. Birch
Birch & Buck
Sandy Creek, New York

"Of course, we were mighty happy when we sold a customer a David Brown on the strength of John's recommendation and enthusiasm but this is typical of David Brown customers. We sold 27 tractors in just a bit over a year so you know with that kind of sales volume David Brown has to be a 'great tractor.' Like all our customers, we call on John at regular intervals, but to date he has never needed service."

For further information contact the David Brown dealer nearest you or write:

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out to be PIGS. OH, NO! But it was, and I'd better learn fast about pigs.

At 11 p.m. one night a boy knocked on the door and said, "Mrs. Keltz, come and see my pigs. There's something wrong with them." Well, it was dark as a stack of black cats out, and we didn't even have a flashlight! So I asked him to describe the ailment. I'm no vet, and don't pretend to be one . . . but I did have a 4-H pig manual that listed some of the common diseases. With the description he gave me, those pigs could have had one or all of the diseases listed in that manual! Finally I told him I'd look at 'em first thing in the morning and call the county agent, which I did. Turned out to be a zinc deficiency, thanks be!

A number of the boys were on the judging team, and they attended Penn State University and came back proudly displaying ribbons. Some did demonstrations at the county fair, and won experience if nothing else. I was real proud of them all.

By this time our sons were breeding pig stock. After some disappointment over a sterile boar and lost time, they finally had the sows serviced. All seemed to be going fine till one day when we were all planting potatoes (we plant by hand) we ran out of fertilizer and I sent Dave to the barn to get some. He came racing back shouting, "Come quick, my sow is choking. I think she's dying!"

We dropped buckets, potatoes, hoes, and ran to the barn. Sure enough, she was choking, gasping for breath . . . and she was down. I dashed to the house and called the vet, who came quickly. When he said, "We'll have to knock her out" all I could think of was a sledgehammer. DUMB! He used a hypo . . . four of them . . . then he reached down her throat while we all held her down (she kept trying to get up, drowsy as she was) and brought up a handful of dry bread! Now I ask you, who would have thought a grown hog would choke on a piece of dry bread? "No more dry bread for the sows, PLEASE," I announced. The vet just grinned and said, "Soak it first!"

Husband's Troubles

The boys were making the farrowing pens . . . no hurry . . . they never hurry . . . pigs weren't due yet, they said. They got one pen done, with Ben's help. Twenty days from the farrowing date, at 5 a.m. Dave came running in to the kitchen, where I was packing lunches and getting breakfast, crying, "Mom, Benny's sow had her pigs last night, there is 7 of 'em!" Well, everyone out of the house like it was on fire . . . all but me, I'm still packing lunches. Two hours later they came in. Hurry, wash, eat, dress, grab lunches, and run for the school bus! Benny stayed home to help.

We lugged jugs of hot water up that hill to the pigpen to keep the pigs warm. It was cold, and we had no electricity up there. Talk about physical fitness. WOW! I tore the seat out of my jeans hopping the fence; they didn't make a gate. They are all long-legged here but me, and they sail right over; now me, I took a running leap with a jug in each hand.

Pigs all warm now, and I look around . . . and there is David's sow . . . in labor! No farrowing pen even started. Benny and I built one. I did the running after nails, boards, hammer, etc.; he planned it and laid it out. We were finishing up when the rest of the kids came home from school. I had completely forgotten about supper and the bread I had mixed up at noon. "Lorrie, you pan that bread and get supper," I instructed our 12-year-old daughter. "Who me?" she yelped. But she went to do my bidding. Dave leaped the fence and fell. "Don't break a leg now, cause I'd take care of that pig first," I screamed. We tried to put her in the pen . . . no, thanks . . . she chose a corner of the pig lot and made a nest. Ungrateful!

Ben came home from work and came looking for me. "Come and eat; she'll go in," he said.

We finished supper. It never tasted so good, and Lorrie got more compliments on her cooking than I have had in twenty years.

After chores, Ben and the boys tried to put the sow in . . . couldn't. They decided to stay with her all night. At 3 a.m. I was awakened by Dave. "Mom, come here!" There in a basket in the kitchen he had nine squealing little pigs. I said, "Better wash up and get to bed." "Can't; she is still having them" he called over his shoulder as he went out the door. "Huh! More?" At 3:30 he brought in four more. They put the sow in the pen and came in . . . dirty, smelly, cold, and hungry. A quick wash and eat and back to the barn for chores. Then shower, dress, hurry, hurry . . . there comes the school bus

Well, the pigs are fine and the boys and I learned a lot. The kids who take 4-H sure are to be commended . . . they stick with it.



Where else but from the No. 1 manufacturer of wheel-type hay rakes would you expect to get a rake that: gets all the hay; gets all the leaves; costs less to buy; costs less to maintain, and saves you time and money whenever it is used.

Here's one of the rakes that does that . . . the **Model 25.** This 5-wheel rake weighs a light 635 pounds. Pulls easily. Has 15 double teeth per wheel. Takes a 7′ swath. Rolls the hay gently, even at 20 mph. Gets all the hay under any crop or terrain condition. Has fewer moving parts . . . less maintenance. Puts more time in operation.

Another is the **Model F-5 Wheel Rake.** Does the same thorough raking job. Available with extensions to increase raking swath. Has 18 double teeth per wheel. The F-5 is heavier (960 lbs.) and sturdier. Makes light, fluffy, fast-drying windrows.

There's another Farmhand product designed to save you even more money . . . the **Windrow Turner.** Helps you get your hay up sooner. Speeds up drying by several days. Could even mean the saving of an entire crop.

See your Farmhand Dealer for the complete lineup of Wheel Rakes. One will be just right for you. Farmhand, Inc., Hopkins, Minn. 55343.

FARMHAND
MECHANIZED MUSCLE FOR TOUGH JOBS

Kirby

(Continued from page 30)

3. Are you making full use of fertilizer?
4. What about insect and weed control?
5. Are you using good hybrids and proper plant populations?
6. Are planting, cultivating, and harvesting done on time?
7. Are you ready to buy new machinery?
8. How will narrow rows fit into your other operations?
9. Is narrow row harvesting equipment available?
10. Increasing plant population and going to narrow rows will not in themselves add extra bushels to total yields unless your whole cultural package is top-notch.

INFORMATION

A recent list of new publications from Rutgers included ones on bush fruits in the garden, furniture restoration and care, making a will, growing beef cattle, fertilizer recommendations for various type crops (and home grounds), and many more.

Single copies of most bulletins are free to residents of New Jersey. For a list of all those available, contact your county agent or write to Bulletin Clerk, College of Agriculture and Environmental Science, Rutgers University, New Brunswick, New Jersey 08903.

FEEDER PIGS

Looking for something new or a bit different to broaden the farm operation?

Here is a suggestion from Donald Kniffen, specialist in animal science. He thinks the production of feeder pigs is well adapted to New Jersey. In his opinion, the growing of feeder pigs can be added to many farm operations without increasing to any great extent the inventory in equipment and buildings. The demand is here. Feeder pigs are in demand by commercial growers. Each year, scores of producers scour the Midwest for truckloads of feeders, and the paying price, according to these commercial operators, is considered excellent.

The New Jersey Livestock Association, an organization largely composed of hog feeders, is constantly looking for supplies to meet month-by-month operations.

One of the outstanding hog farmers in the East is Charles Mills, Rehobath Beach, Delaware. He also contracts with other farmers to grow hogs to market size, then sells them to the large packers in Baltimore, Philadelphia, and other markets.

Growing feeder pigs to a weight of 35 to 50 pounds is a specialized business, and one that fits into many farm operations.



Ready to fight for its life!

...And Banvel® herbicide is helping. It's been applied early post-emergence.

Apply Banvel for broadleaved weeds at the optimum time...when you can *see* you have a weed problem. No wasted money in herbicides here! You spray when you see your problem and get superior control of stubborn weeds. Weeds such as Canada thistle, pigweeds, ragweeds, velvetleaf, lambsquarters, smartweeds, purslane and most all other broadleaf weeds are handled beautifully. Spray your whole field or spray only those spots that you can see need control. You'll get much more comprehensive control than possible with 2,4-D or other post-emergence controls, and you won't make your field corn brittle. The earlier you spray weeds after you see them, the better. But Banvel can still be sprayed on field corn until it's 36 inches high. Banvel is an easy to use liquid. It washes out of your spray tank without trouble. Banvel has not been known to irritate skin. The cleanest corn makes the most profit. Banvel gives the cleanest corn. Order some from your dealer now.

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THE GROWING WORLD OF VELSICOL

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VIGORIZED VEGETABLE SEED

This is something new. It is something that we are going to hear much about in the future.

Vigorized seed is a vegetable seed that has been treated with an aerated-potassium solution for several days. The potassium-treated seed germinates and emerges from the ground sooner than untreated seed. It works on tomato seed. Kept at 60 degrees, vigorized seed emerged in four days. Similar results have been secured on pepper and egg plant seed.

This may be the open road to direct-seeded tomatoes. Among the problems has been to secure a fast germination, and getting the plant through the soil before it crusts.

According to county agricultural agent Robert Langlois, Gloucester County, remember that vigorized seed is here to stay. Most growers will be using it soon, many even this year. It may be new to many, but it will soon be as common as treating corn or other seeds for this and that.

RE:SEARCH

An entirely new kind of periodical, entitled "RE:SEARCH," has been published at the Rutgers College of Agriculture and Environmental Science at New Brunswick, New Jersey. Through its pages the scientists hope to portray, in a meaningful manner, the work carried on at the College . . . essential research and educational work. Single copies of the periodical will be sent free to any citizen of New Jersey upon request.

FIRST PLACE

At the 11th Annual Vegetable Growers Association meeting held at Pennsauken, New Jersey, on January 8-10, G. Alexis Coleman of Elmer, New Jersey, was declared first place winner in the 1967 Quality Class of the New Jersey 20-ton Tomato Club. His record on the 10 acres he planted was as follows: Tons per acre, 22.34; U.S. Grade No. 1, 88.7; U.S. Grade No. 2, 10.7; Culls, .6.

LIVESTOCK



Sell When Ready—The American National Cattlemen's Association has published a summary of feeding data from various university studies and information from individual cattle feeders throughout the United States. It shows that the cheapest weight gains usually are made when animals are young and in their fastest stage of growth.

Generally, feed costs per pound of gain in cattle more than triple over a year's feeding period. Furthermore, costs rise an increasing rate as cattle are fed to heavier weights. This clearly shows the profitability of marketing cattle as soon as they reach the desired grade.

Hog Vaccines – All hog cholera vaccines are being phased out. Fully-virulent live virus vaccine is no longer being produced; after January 1, 1968, all modified live virus vaccines may be used only under official administration; after January 1, 1969, modified live virus vaccines may no longer be used; after January 1, 1971, no vaccines may be used . . . including the killed or inactivated ones. In those few cholera outbreaks that may occur, owner should have aid of indemnity money.

Low Viscosity—American Cyanamid Company has developed a lower viscosity formulation of injectible iron, which also works at low temperatures.

New Additive – A new man-made hormone which, in minute doses, speeds rate of weight gain and improves feed efficiency in feedlot heifers has been announced by the Upjohn Company's Agricultural Products Division.

The compound, MGA (melengestrol acetate), has the additional advantage of suppressing heat . . . often a problem for feedlot operators who fatten heifers for slaughter. It will be marketed by Tuco Products Company, a division of Upjohn, as a feed premix, MGA-100.

One investigator, Dr. John Matsushima of Colorado State, has termed MGA the most significant development for the cattle feeder since the discovery of diethylstilbestrol (DES). The latter, also a hormone, has been used for years to help fatten steers and heifers for market. However, in trials to date, MGA appears to have a distinct advantage over DES in improving rate of gain and feed efficiency in heifers.

Carcass Report—A report on 4-H baby beef steers exhibited at the 1967 Eastern States Exposition shows that 42 head of Herefords had an average dressing percentage of 61 percent (range of 50.8 to 68.6), and an average USDA Yield Grade of 3.23 (range 2.01 to 4.71). These Yield Grades run from 1 to 10, with 1 having the highest percentage of carcass weight in trimmed boneless retail cuts from round, loin, rib and chuck . . . 10 the lowest percentage.

There were 47 Angus in this evaluation, with an average dressing percentage of 62.4 (range 56.2 to 71.4) and average Yield Grade of 3.54 (range 1.49 to 6.71).

Anyone desiring a free copy of this in-depth report on the carcass characteristics of these 89 show-quality animals should write Professor W. A. Cowan, College of Agriculture, University of Connecticut, Storrs, Connecticut 06268.

HORSE FEEDING

Professor William Tyznik of Ohio State University lists these rules of thumb for feeding horses:

– Two pounds of high-quality hay per 100 pounds of body weight.

– Grain to keep it in the fleshing condition desired.

– Trace mineral salt . . . loose

– Dicalcium phosphate fed free choice.

– Provide clean water up to 15 gallons a day.

– Growing, working or lactating horses should be fed 16 percent crude protein in the grain ration.

– Don't feed rye, ground wheat, uncrimped barley, or cooked grain to horses.



"Boys, BOYS! Please don't fight over me!"

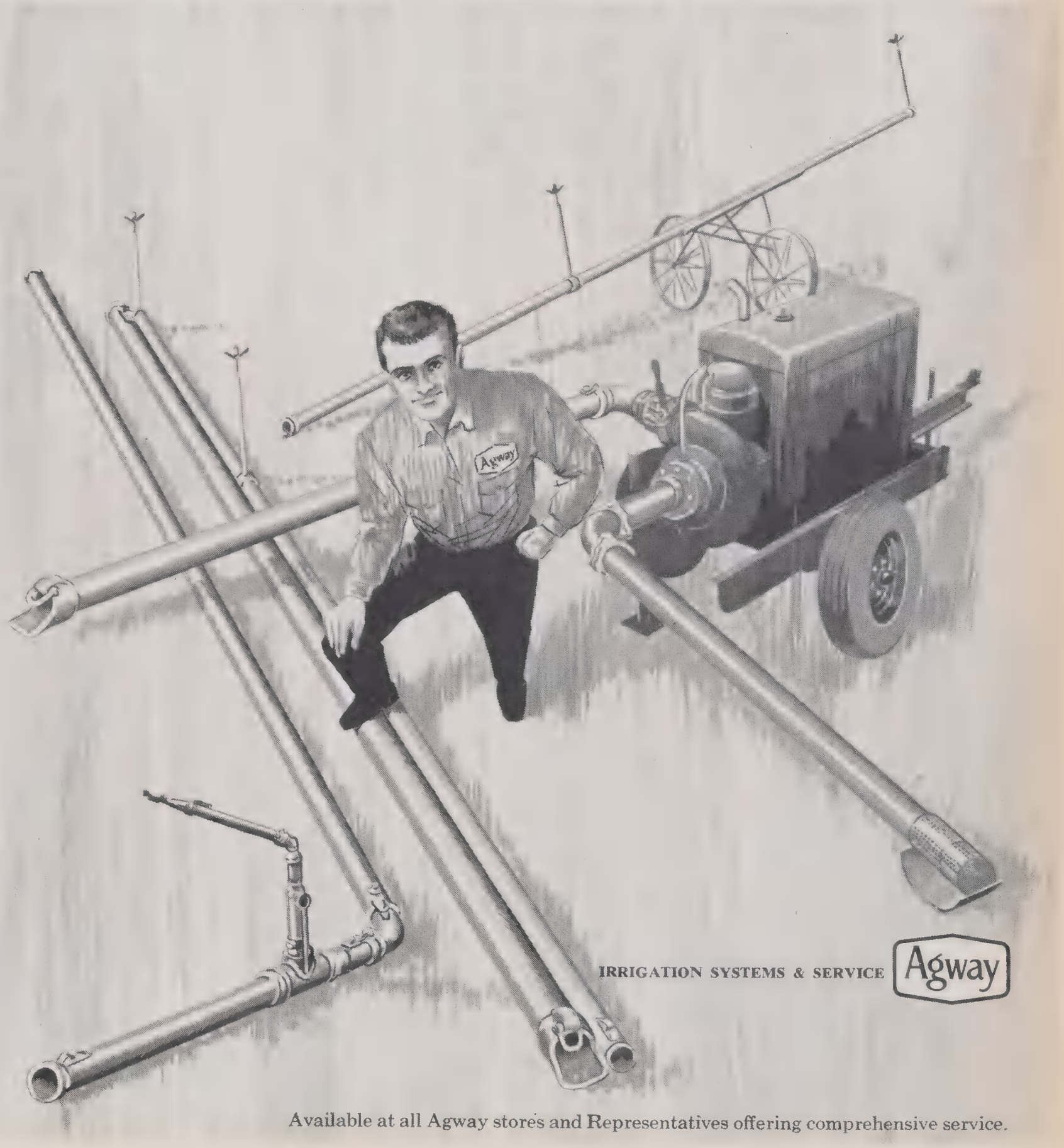
Agway can serve up the extra moisture needed by your thirsty crops—an extra inch or an extra three inches—on *any* day of the season.

But Agway does it with an irrigation *system*, not just a pump and some pipe. An Agway system is *designed* for *your* farm, by an Agway irrigation specialist who'll go into this much detail: Your water quantity and location. Your present and planned acreages. Your topography, soil conditions and field dimensions. The root zones and water use of your crops. He will select the right pump, the right sprinklers, the right pipe—right for your farm and what you want irrigation to do for you.

That's the extra you'll get with Agway irrigation. A system to do what you want it to do now, and later on. Get the moisture *where* you want it, in the *amount* you need, at the exact time when it will do the most good.

How much will it cost? How long to get more than your investment back in yield gains? Your Agway man can provide some reasonable estimates. Talk with him today.

If you want an extra inch of water on July 24, you can order it now.

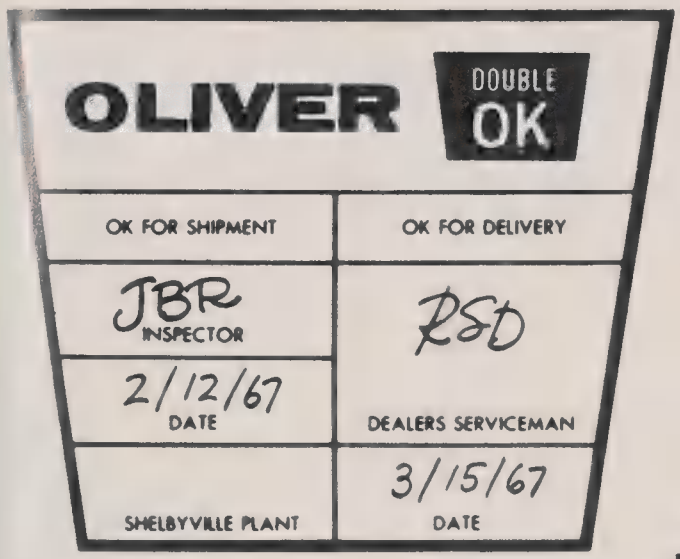


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Stretch your sunshine with 999 sound bales out of every 1000



Hay in the windrow and ready to bale. More waiting to be cut. That's when Oliver's Double OK makes the big difference. It's the best assurance in balers that you'll keep rolling. With 999 well-tied bales out of every 1000.

Here's why the Double OK means so much: First OK, after a 17-point factory check. Second OK, after another complete check-out by your dealer's service man. The signatures of two good men tell you that any misadjustment or factory slip-up has been corrected. Before you start racing the weather.

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With either Oliver baler—the 720 built for 100,000 bales a year, twine or wire tie; or the smaller 520—you get the crop-saving Roto-Flo Feed. And 81 baling strokes a minute. See your Oliver dealer. He's the best sunshine stretcher in your community. Oliver Corporation, Chicago, Illinois 60606.



Take a close look at Roto-Flo Feed. It puts all kinds of material into even slices with the positive capacity of a side delivery rake. Without shattering leaves.

The baler on the opposite page is handling windrows laid down by a 10-ft. windrower with conditioner rolls.

OLIVER
FOR MEN WHO GROW

Dairy Breed

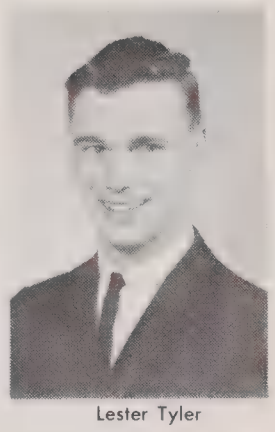
ACHIEVEMENT WINNERS

IN 4-H work strong emphasis is placed on leadership, citizenship, and upgrading of personal standards. Projects are many and varied, and most of the members carry more than one.

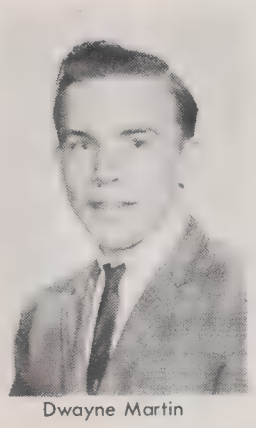
In the dairy breed program, each year those boys and girls who become N.Y. State winners are invited to attend the annual meeting of their chosen breeds to receive awards. Professor Dennis A. Hartman of Cornell, who works with the dairy breed project members, tells us about the 1967 winners:


Allen Woodword, Jr.


Karen Sipher


Lester Tyler


Amy Lenahan


Dwayne Martin


Barbara Titus


Kenton S. Patchen


Dorothy Pinkney


Peter Wilson


Nancy Chamberlain

Ayrshire

For **Allen Woodword, Jr., Gouverneur,** his 4-H work started nine years ago. He now has an Ayrshire herd of seven cows and five calves, seven of which are of his own breeding. Allen has enjoyed showing his animals at the county and State Fair, where he won a number of first place ribbons, as well as junior and senior championship awards.

Allen has received excellent ratings on his dairy records, is a good cattle judge, and also excels at dairy demonstrations at both the county and district level. It would take too much space to mention all his other projects and the contributions he has made in office. At present Allen is a freshman at Canton A.I.C.

State Ayrshire Girl is **Karen Sue Sipher,** also of **Gouverneur.** Karen received her first project animal from her father, and since then has accumulated a herd of three cows and four calves, five of which are of her own breeding. One of her two-year-old cows has a record of 11,714 pounds of milk and 552 pounds of butterfat in 305 days.

Karen has become an excellent showman at county and State Fair, and received the Master Showmanship award at the 1967 State Fair. She has held a number of offices in her local 4-H Club, and in addition has done project work in sewing and cooking in which the results equal her results in dairy work. Karen likes to help others.

Brown Swiss

The **Brown Swiss Association** award went to **Lester Tyler, De-Lancey,** who started his 4-H work ten years ago. Today he owns seven cows, one yearling, and four calves; eleven of them are of his own breeding.

In 1967 Lester was selected as a Master Showman at the New York State Fair, is an accomplished judge of dairy cattle, and was a member of the 1967 county dairy cattle judging team. Ratings on dairy records and demonstrations have been high.

In addition to his dairy project, Lester has completed work in vegetable, poultry, rabbit, and tractor maintenance projects, besides holding office in his local club. He is now actively engaged in farming with his father, and states that he enjoys growing

(Continued on next page)



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farm crops and working with cows.

Brown Swiss Girl for 1967 is **Amy Lenahan, Gouverneur.** Eight years ago she began with a registered Brown Swiss calf purchased from the Stewart Benedict herd at Massena. Today she owns six animals, four of which are of her own breeding. Due to her father's health, and the hired help situation, the milking herd was dispersed in November of 1967, at which time Amy sold seven animals.

Amy has shown her cattle at the county and State Fair, and is a very good showman. In 1961 her junior yearling was selected as a "bell ringer" by the State Brown Swiss Association. The Rock Island 4-H Club, in which Amy is a member and has held office, is one of the oldest clubs in the county.

Guernsey

A trip to New York City, representing his county in the honor awards, came to **Dwayne Martin of Gouverneur** as a result of the fine achievements he has made in dairying. His breed is the Guernsey, and he has a herd of fourteen cows and three calves, fourteen of which are of his own breeding.

Dwayne has won blue awards on dairy record keeping, demonstrations at county and district level, as well as a large number of ribbons on his cattle when shown at the county and State Fair. He is an excellent showman, has held many offices in his local club and at camp, and has also completed projects in poultry, garden, and farm shop. He is a freshman at St. Lawrence University this year.

State 4-H **Guernsey Girl** is **Barbara Titus, Wyoming.** She started her 4-H work nine years ago, now has 2 cows and a calf. Her animals have consistently placed well at county and State Fair; in 1967 her cow was named the grand champion at the State Junior Show at Syracuse.

Barbara has become an excellent showman and a good dairy cattle judge, and 1967 brought her an excellent rating in the Hoard's Dairyman Judging Contest. Other projects include cooking, clothing, dog care and training, garden, and home improvement, and she was selected in 1967 to represent her county at the Citizenship Short Course in Washington, D.C.

Holstein

Kenton Patchen was chosen first from a total of 69 entries as 1967 Holstein Boy. Ken lives at Locke, and follows in the footsteps of two of his sisters, Sylvia and Donna Patchen, who were State Champions in 1955 and 1959 respectively. Sylvia was also National Champion Girl in 1956.

During his ten years of 4-H training Kenton has completed projects in eleven different areas and now has a herd of 22 registered Holsteins. Upon completion of college work he plans to enter into partnership with his father. His best-known cow, Elkendale Ivanhoe Topsy (EX-91) has been Reserve Junior All-American as a three-year-old, and two-time Agway Production Award winner at the State Fair. She was also a winner in the four-year-old division of the Production Contest sponsored by the New York Holstein-Friesian Association.

Dorothy Pinkney, Castile, State Holstein Girl, is a sophomore at the State University College at Oswego. She is an outstanding leader in her community and in her club.

Dorothy's herd consists of nine animals . . . five cows, a bull, and three calves. Her best cow has completed a record of 19,312 lbs. of milk and 739 lbs. fat as a three-year-old.

Jersey

Peter Wilson, Stanford, has been selected as the 1967 State Jersey King. Since Peter started 4-H work eight years ago he has taken an active role in many of the projects offered. His dairy project work has been quite outstanding, as evidenced by his herd of five cows, two heifers, and three calves, five of which are of his own breeding.

Through showing at the county fair, the Cooperstown Junior Show, and at the New York State Fair, Peter developed into an excellent showman at an early age, and was named a Master Showman at the State Fair in 1964. He is one of the best dairy demonstrators in the State, and this year was selected as one of the top 21 to demonstrate at the State Fair ADA, Dairy Council Booth, which was observed by approximately 2000 people.

State Jersey Queen is **Nancy Chamberlain of Wyoming,** who has accumulated quite an outstanding record of achievement in her nine years of 4-H work. She is the owner of five cows, five calves, and one bull, nine of them of her own breeding. She has won a number of showmanship contests in the county, does well at judging and at dairy record keeping.

In addition, Nancy has completed a number of cooking and sewing projects.



Around Schoharie, New York, Paul Westheimer is known for the quality of his vegetables grown with VERTAGREEN

If you've ever grown crops for the fresh vegetable market, you know the importance of *quality*. Paul E. Westheimer of Schoharie Valley Farms knows what quality means. That's why he uses Armour Vertagreen Powr-Prils Fertilizer on all of his vegetables!

Paul started using Vertagreen Powr-Prils back in 1965. By 1966, he was using Vertagreen "all the way" on his 500 acres of crops including carrots, parsnips, spinach and turnips. That was the year that proved to him that Vertagreen really is "Worth More Because It Does More!"

"Vertagreen gives us approximately 20% more U.S. No. 1 carrots," reports Mr. Westheimer. This "Vertagreen Difference" in his yield is due to both increased quantity and quality . . . the important combination that means *profit* in the fresh vegetable market.

Paul Westheimer begins every year with an Armour Soil Test and follows Armour Soil Management recommendations. Last season this meant using 12-24-24 and 15-15-15 Vertagreen Powr-Prils grades. The important thing is that Paul Westheimer knows that he can depend on Armour Vertagreen for quality yields. If *quality* is important to you, take a tip from Paul and depend on *Armour...A World of Ways to Help You Grow.*



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TOP CORN GROWERS

FOR a number of years, the DeKalb Agricultural Association has held a "200 Bushel Club" contest among corn growers whose goal is that high level of production. Here's a quick run-down of who came out on top in New York's 1967 competition, and the growing practices they followed. All yield figures are in terms of bushels of #2 dried shelled corn.

At 185 bushels per acre, the Gillam Brothers . . . Basil and Milo . . . of Clifton Springs were on top. Variety XL 315, harvested plant population of 22,100 per acre, planted May 17 in 30 inch rows, and weed-controlled with atrazine plus oil, as well as one cultivation.

Plowdown nitrogen amounted to 120 pounds of actual N per acre, and starter fertilizer was 400 pounds of 10-20-20. Harvest of the measured acre was on November 22; moisture percentage was 26.3.

Number two in the race was Jacob Haury, Stanley . . . with 178 bushels per acre. Variety XL 45, plant population 23,500 per acre in 30-inch rows, planted May 20, herbicide atrazine plus 2,4-D plus oil (without cultivation). Fertilizer consisted of 250 pounds per acre of 8-32-16 plowed down, 130 pounds of actual nitrogen applied preplant, and 150 pounds of 6-24-12 as starter. Harvested November 27 at 33.1 percent moisture.

Ted Minns of Geneva was a close third at 177 bushels per acre. His variety was EX 316 planted May 18 in 32-inch rows at 25,000 plants per acre in the final stand. The herbicide was 2,4-D (plus one cultivation). Fertilizer was 400 pounds per acre of 0-20-20 plowed down, 100 pounds actual N preplant, and 300 pounds of 8-16-16 starter . . . plus 10 tons of manure per acre.

The rest of the top ten contestants in Western New York, and their yields, were as follows:

Richard Stokoe, Scottsville (176); Melvin and Fred Olmstead, Holcomb (172); Ellsworth Norton and Sons, Elba (159); Lee Roberts, Medina (146); Reuel Gruendike, Churchville (143); John Zatrocky, Bergen (126); and George Peavey, Munnsville (122).

The earliest planting date among the top ten was May 11. The period from May 14 to May 20, inclusive, included the plant-dates of seven of the top ten. Plant populations in the final stand ranged from 30,000 (Peavey) down to 21,200 (Zatrocky) . . . and averaged 23,940 among all ten. Six of the contestants used 30-inch row spacing, with two having 32-inch rows, and two with a 36-inch interval.

Not all the top corn growers were in Western New York, though. Farther east in the State, the following farmers posted these yields:

Theodore Mehalik, Fort Plain, 150; Coon Brothers, Amenia, 150; and Karl Ehmer, LaGrangeville, 145. Information on the corn-growing practices of these three farmers was not available at press time.

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VEGETABLES



New **Potato** – A new potato variety with top baking quality has been developed by Cornell University scientists. Named "Bake-King," it is extremely mealy, and the scientists feel that it is a really outstanding baker. It will be available to growers only on a limited basis this spring, but it is expected that enough seed will be available for 1969 plantings.

Aerial – Plant pathology specialist Otto Schultz of Cornell estimates 12,400 acres of potatoes were sprayed exclusively by aircraft in New York State in 1967. Although this type of spray application didn't penetrate foliage to lower leaves very well, late blight control apparently has been adequate. One pointer made by Schultz . . . start spraying **early** when density of invading late blight spores is low.

Less Spraying – Cornell University entomologists are hopeful that as a result of a new chemical potato growers will have much less trouble with the three major potato insects. The new chemical is a carbamate which is absorbed by the plant and moves to all parts of it, giving protection from biting and sucking insects . . . yet while remaining effective for the season, it breaks down, leaving no known harmful residue.

The carbamate is still undergoing tests, but professor W. A. Rawlins expects that it will be released to growers in another two or three years.

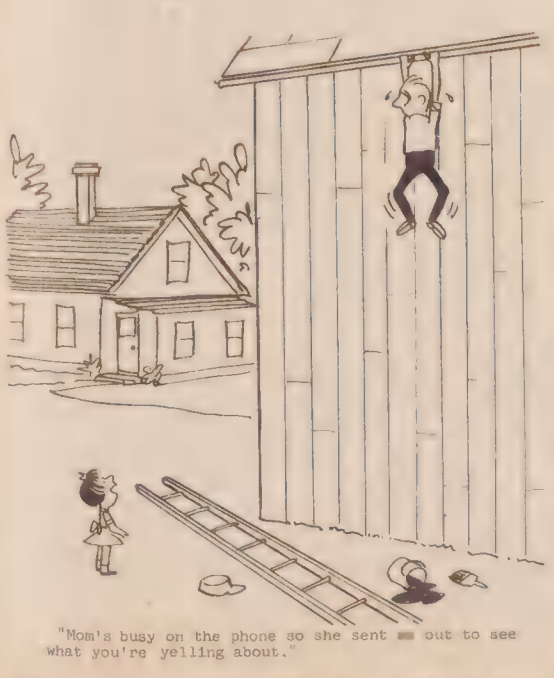
Snap Beans – White mold was 1967's most serious disease of snap beans in the Northeast, and will likely be a serious threat in '68. College specialists recommend not growing snap beans in fields where that crop was infected with white mold last year. If possible, beans should be planted where cereals or forage crops grew in the previous season.

Botran is recommended for white mold control . . . at 2.5 to 3 pounds of active ingredient per acre, applied at seven-day intervals beginning at full bloom and continuing until 2 days before harvest. In 1967 field trials, DuPont 1991 . . . an experimental systemic fungicide . . . looked good, but it won't be commercially available for at least two years.

Beans for Britain – The British love beans, but few of them have enjoyed red kidney beans, a situation that is now being corrected by Agway. Through Country Best, its marketing branch, a vigorous export program has been launched, and 10,000 cases of canned kidney beans from western and upstate western New York State have been sent to a leading British food products firm. There they will be cooked, canned, and sold to British housewives.

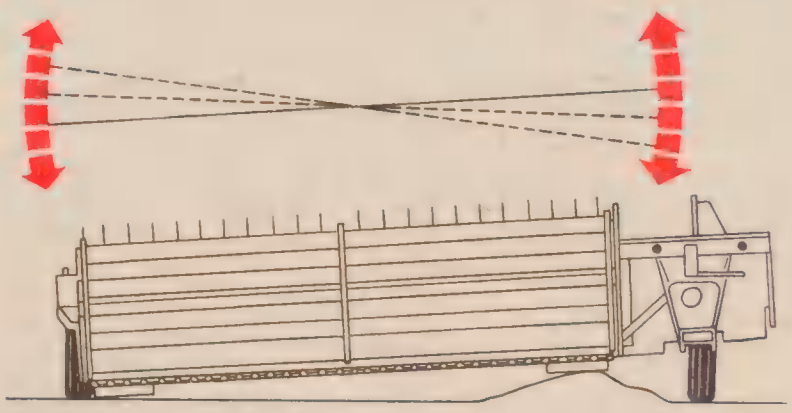
Slugs – The best material for controlling garden slugs is still metaldehyde, reports entomology researchers at New York's Geneva Experiment Station. It is expensive if used on a field scale, and it breaks down rapidly in sunlight or in rain . . . but slugs are tough to kill, and this seems to be as good a control material as is available.

Ozone – A new system of storage has been developed by Spectro-aire Corporation. Incoming air is passed through an ionized field, and the oxygen molecules are converted into ozone, which is then circulated throughout the storage. There is one installation operating in New York State at present . . . for potatoes on the Carl Stowe farm near Avoca (Steuben County). The manufacturer has plans to try the system on other vegetables and fruit storages.



Looking at pull-type windrowers?

Here are some tips.



Header flotation makes a big difference in the cutting job you do.

Ordinary header flotation leaves a lot of forage uncut in the field. Lift the header on one and see why. When one side is lifted, the other side comes up too. Then try Owatonna's Haymaster 22. It uses an exclusive suspension system called "Contour Flotation" (patent pending). Each side of the header is supported by its own heavy coil spring. So the header floats along even the roughest ground . . . getting all the crop. No waste with a Haymaster 22. There's no gouging, either. Because the header pivot point is very low on the Haymaster 22, the pull of the tractor actually lifts the header up . . . rather than gouging it into the ground, like other models do. Look at the underside of the Haymaster 22 and see for yourself.

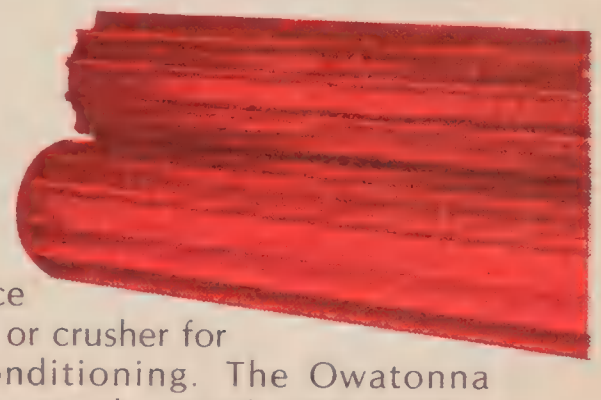


Don't let the hitch limit durability and versatility of the machine.

One look at the Haymaster 22 and you can see the hitch is the most rugged available. Compare it. It's safer, too, because it encloses the PTO drive. When traveling on the road, the hitch on the 22 can be swung in to narrow the width . . . without unhooking the PTO!



W-7-1



Get "use-tailored" features for your specific needs.

Only the Haymaster 22 gives you a choice between crimper or crusher for 100% forage conditioning. The Owatonna crimper uses two synchronized, individually-powered rolls. Crusher has a fluted rubber roll and a bar-type steel roll. And you can select any windrow width — even leave the shields wide open and lay the conditioned forage in a full swath. You'll like the other "use-tailored" features of the 22: 8-bat reel, fast reel speed, heavy construction, *and* a low price tag.

Or step up to a self-propelled...

Owatonna's long line of self-propelled windrowers can meet the requirements of even the biggest operations. The big Imperial 92 has 60-hp., up to 16-ft. cutting capacity with exclusive tapered auger. OMC self-propelled draper models are available with power units ranging from 30 to 60 hp.

See your Owatonna dealer soon, or fill in the coupon.



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HIGH QUALITY TREES

by Henry S. Kernan*

FARMERS and woodlot owners recall with a pang the hurricane that swept through Central New York in the fall of 1950. Millions of board feet of timber were laid to the ground. Millions of saplings were crushed, snapped and bent out of shape. My own thirty acres were typical northeastern woodlands in volume and in quality, and typical in the damage they suffered.

Since then, at odd times and as other work permitted, I have spent a few hours in this woodlot.

* R.D. #1, Worcester, New York 12197

First of all, I levelled the trees that were hung up or bent over, and in the process learned that more trees were present than I had first suspected. There were some rotten old beech trees to girdle, and there were hornbeams to cut down.

Good Trees

These operations brought to notice more and more maple, ash, cherry and basswood . . . the straight, clear, fast-growing young trees which promise well for the future. Apparently the previous tangle had kept well hidden the real potential of the woodlot. I went even further. I cut down the cull trees of every species, gave the best trees room to grow, and pruned the softwoods of their lower branches.

Two summers ago I made a 100 percent cruise of the thirty acres. The tally showed an average of over five thousand board feet to the acre, divided percentagewise thus:

Hard Maple	33
Beech	23
Pine	14
Red Maple	9
Hemlock	7
Others	14

In this area, average stumpage values are about $45 a thousand. Thus the estimated growth rate of 250 board feet to the acre each year is earning me $11.25, or 5 percent yield on the invested capital. This rate is higher than the average of common stocks and considerably better than most agricultural investments.

Investment

These results have bolstered my conviction that successful woodlot management results only from careful, sustained investment which recognizes both the way forest stands develop and the trend of market demand.

The productivity of our northeastern woodlands has confounded the public again and again by increasing in volume three or four times the rate at which they are being cut. But their composition and condition is such that they produce an abundance of low-grade material along with the high-quality logs.

The owner must eliminate this material and thereby concentrate the growth potential of the soil on the best trees. Time alone will not bring about this result. On the contrary, the large "wolf" trees and the tolerant beech will grow larger and will suppress the others.

I even question the advantages of selective logging as commonly explained and applied. Too often the practice becomes an unsatisfactory compromise between the forester and the logger, and brings about improvements so slight as to be unconvincing.

Not Easy

The rank growth of our trees does not ensure that woodlot owners have an easy source of revenue or that industries will be at hand to buy material that appears in such effortless abundance. In fact, I have long suspected that such owners will wait in vain for a profit in ridding their woods of inferior trees.

Fifteen years ago in this area we hoped for pulp mills and charcoal kilns. Now we have both. However, their contractors take all trees, good and bad, and pay hardly more than a token. One dollar a cord does not compensate the landowner either for taxes or for capital investment. No farmer would consider growing wood at such a price.

The truth is that in forestry, as in so many aspects of human endeavor, quality has no substitute. While prices for cordwood and lowgrade logs have declined since World War II, those for prime quality hardwoods have risen in a spectacular way.

Some time ago a sawmill operator told me, rather grandly, that he was paying $25 a thousand for hardwood logs. Not long ago, the manager of a newer mill offered me $250 for cherry.

A tenfold increase in two decades should give woodlot owners, many of whom are also dairy farmers, food for thought. Has anything comparable occurred to the price of fluid milk?

But let me emphasize again

(Continued on next page)

This 100% systemic insecticide builds in long-lasting bean insect control

Experience with Thimet® on 350 acres of spring and fall beans has proven to Joe E. Bernard, manager of the Carlton Byrd Farms, Parksley, Va., that this soil insecticide provides long-lasting systemic protection against a multitude of insects. / "Before we used Thimet, we had to maintain a strict 7-day spray schedule or we wouldn't have gotten a crop at all. Thimet has certainly taken a lot of pressure off." / Other bean growers throughout the country get continuous control of beetles, mites, lygus bugs, aphids, thrips and leafhoppers. There is no effect on flavor. No residue in the harvested crop. No danger to beneficial insects. No soil compaction from repeated use of spraying and dusting equipment. No drift, wash or blow-off. Thimet moves up from the soil to protect the entire plant from the inside! And by eliminating disease-carrying insects, Thimet also helps stop bean mosaic and curly top. / Handy 10-lb. bags make it easy to use recommended rates of Thimet with a granular applicator in the row at planting time. Order Thimet from your dealer today! / Before using any pesticide, stop and read the label.

CYANAMID

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PRINCETON, NEW JERSEY



that the increase has been for quality. Mills accept less low-grade material and offer little more for softwoods, beech and elm. Red maple, on the other hand, has risen from the status of an inferior species to one which can command up to $90 a thousand.

Probably the accent on quality will maintain good prices for the favored species and will bring those for select logs of other hardwoods upward. Sawmill men will continue to clamor for quality, and pulpwood contractors will continue to find stumpage at scarcely any cost to themselves.

Tramping through New York woodlands year after year has convinced me that more of them contain timber potential than meets the eye at first glance. A more careful scrutiny will often reveal those straight, healthy, fast-growing saplings that are a pleasure to behold and a profit to own.

Check Locally

Before deciding what species to favor and what to eliminate, consult the price list of several of the local mills. The disparity in prices between ash and beech, for example, leaves no doubt as to which to favor. Furthermore, your area may favor certain species over others. Cherry logs may bring top prices. But if cherry does not grow well, do not put your hopes on cherry!

Here in the Charlotte Valley of Otsego County the best species are hard maple, ash, and red maple. Birch, although in high demand, does not grow well, and I leave only an occasional specimen. Beech is definitely inferior in both price and quality, whereas cherry, basswood, oak, and butternut are too scarce to be of great consequence.

As regard the softwoods . . . spruce, pine, hemlock and fir . . . they bring but low prices. The growth capacity of these forest soils is best used for producing high-quality hardwoods.

Three Methods

Felling, girdling and poisoning are the three methods of eliminating the woodlot of undesirable trees. Girdling is very effective at any time of the year provided the inner bark is completely stripped away for several inches all around the trunk. Ability to grow new bark can keep an old cull alive for decades.

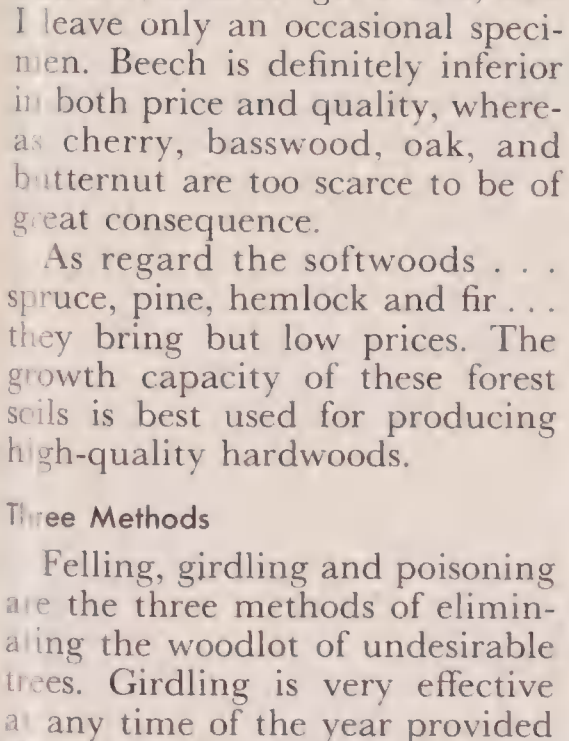
Poisoning works best when the leaves are out and the sap is moving. Unfortunately for the casual woodsworker, he can poison trees by any method most effectively in the heat of summer. Then does the strength of the trees drain away most readily toward the withering twigs, and the poison move so rapidly that in a matter of days the leaves droop even to the highest branches.

I have found that a three-man crew . . . two frilling with axes, and one applying 2, 4-D and 2, 4, 5-T from a pressure oil can, works most effectively. Since each stand of trees differs as to the number requiring treatment, the number of hours required for a given area will vary accordingly.

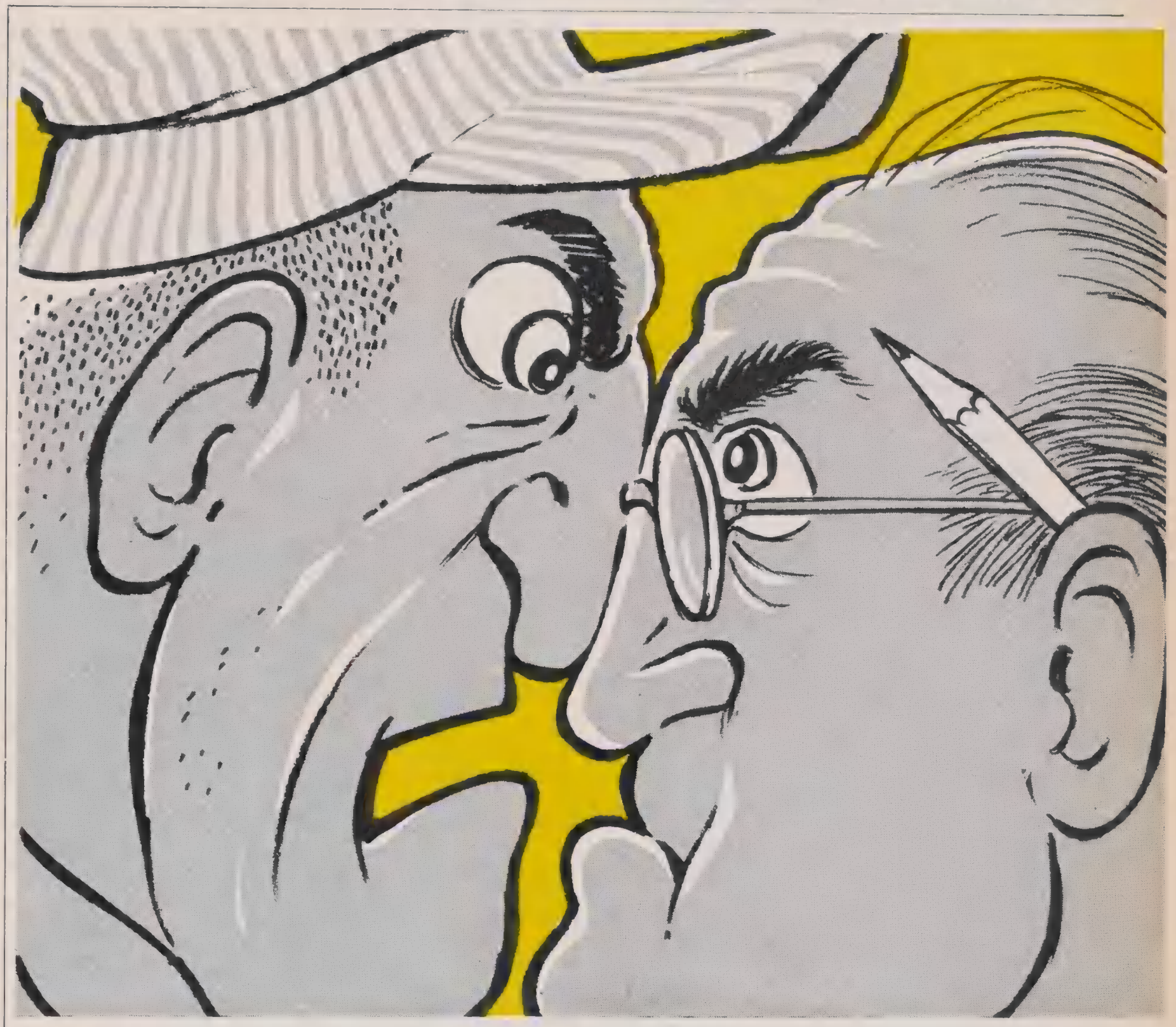
Better than one operation is a series that brings the tree farmer back to his woodlot again and again in all seasons and moods. Like the herdsman who has a pet name for every cow in the herd, he comes to know every tree in his lot. Every pass brings surprises and satisfactions in the results of his labor.

FOREST OWNERSHIP FOR PLEASURE AND PROFIT

The authors, Hardy L. Shirley and Paul F. Graves, are dean emeritus and associate dean of the State University College of Forestry at Syracuse University, Syracuse, New York. The purpose of the book is to provide guidance to prospective buyers and owners of woodlands. Expert advice is given on how to find and approach a forester, lawyer, accountant, and logger; how services can be obtained from public agencies at little or no cost to the recipient. Marking boundaries, pruning, estimating, the hazards as well as the potential for profit are all dealt with, together with the best methods of marketing forest products. The book is published by Syracuse University Press, Syracuse, New York 13210 . . . price $5.50 plus tax.



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News and Views from NEW YORK AND PENNSYLVANIA



State Corn Winner—A yield of 120.06 bushels of corn brought the title of State Winner to Douglass Parsons of Interlaken, New York, in the National Corn Growers contest. The contest covered 249 growers in 27 states.

Parsons found the weather delaying operations at both planting and harvest time. His corn went into the ground May 25-26, planted in 36-inch rows at 28,000 population. He had spread 10 tons of cow manure per acre during the winter, plowed down 250 pounds of 10-20-20, added 100 pounds of liquid fertilizer, and then used another 200 pounds per acre of 10-20-20 for a starter. He feels that the correct hybrid, moisture and fertility are the most important factors in top-yielding crops.

❖❖❖

Honors at Geneva—Dr. James M. Hamilton, former head of Cornell University's New York State Agricultural Experiment Station's Department of Plant Pathology received a special citation at the Horticultural Society meetings in Rochester for a lifetime of productive research in solving orchard disease problems. The citation was presented on behalf of the fruit growers of New York State by Thomas E. LaMont, secretary of the Horticultural Society.

Professor George L. Slate of the Geneva Experiment Station was presented with the coveted Wilder Medal at a meeting of the American Pomological Society. Slate has been at the Station since 1922, and a full professor since 1950. The medal is given to individuals who have rendered outstanding service to horticulture in the broad area of pomology. Special consideration is given to work relating to the origination and introduction of meritorious varieties of fruit.

❖❖❖

Farm Bureau Honors Talmage—"Long Island Farm Bureau's Farmer-Citizen of 1967" was the title conferred on Nathaniel A. Talmage of Riverhead recently for his unique contributions to agriculture as both an innovator in growing and harvesting practices, and as an articulate spokesman for farm interests.

❖❖❖

Scholarships—The American Angus Women's Auxiliary has announced that it will award three scholarships for higher education to the top winners in its annual contest. First prize is $600; second, $400; and third, $200. The awards will be made to qualified 4-H Club girls, and the first prize winner will also be named 1968 American Angus Queen. Applications must be received before June 24, 1968. Girls interested in competing should write to the president of their state or regional Angus auxiliary.

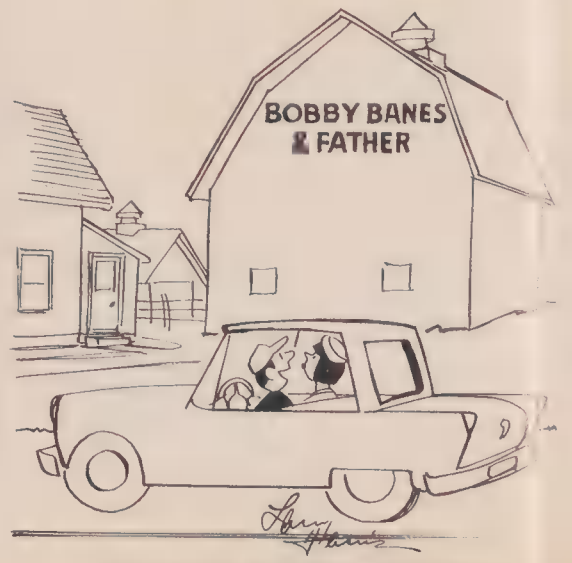
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The Farmer's Art—Hung in Secretary of Agriculture Orville Freeman's office was an exhibit of paintings by American farmers and farm women. The exhibit features works by twelve amateur artists who live and work on farms and paint as a hobby. Presented in cooperation with Famous Artists School of Westport, Connecticut, the exhibit demonstrates the type of art being done by home-study students. It remained in Secretary Freeman's offices for a month, and is now touring the country.

Among the artists featured is Mr. Donald Davis of North Bangor, New York, who raises Holstein cattle, alfalfa, and clover on his 129-acre farm. He also produces 1200 pounds of milo, and ships a half ton of milk daily, while running a farm machinery shop. His work was entitled "Winter Feeding."

Another northeastern artist featured is Mrs. Joan Goswell of Mars, Pennsylvania, who keeps house and breeds thoroughbred horses on her farm. Her work is entitled "Seated Man."

❖❖❖



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It gets the hay other rakes miss!



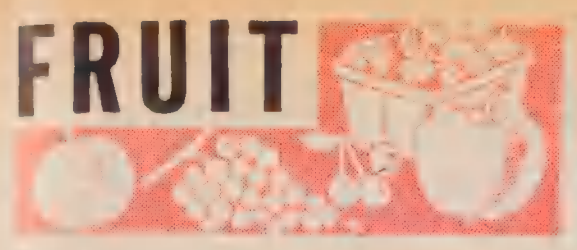
You get a clean raking job in any field—smooth, uneven or hilly. Follows any contour because each raking wheel is independently spring-counterbalanced. Patented double tooth design rakes clean without tossing the hay, and the gentle action builds fluffy windrows without shattering tender, valuable leaves. You'll like the way it handles your hay.

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FRUIT



Perfume – Research at New York's Geneva Agricultural Experiment Station has isolated the female sex attractant of the red-banded leaf roller. The USDA is conducting similar attractant research on other insects.

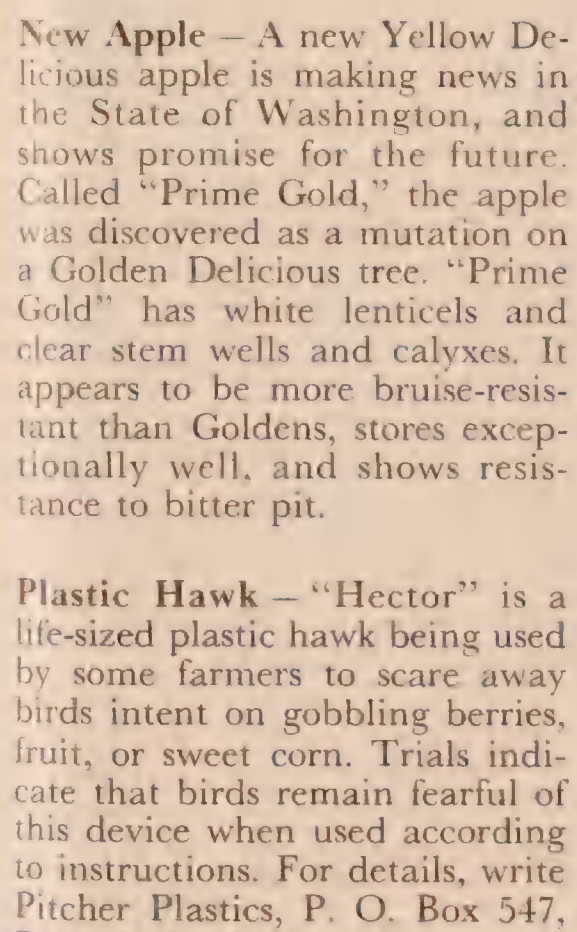
Once any insect sex attractant has been identified, and its chemical composition defined, it may be possible to synthesize it in sufficient quantities for control purposes. Males can be lured by its use to lethal traps . . . or it can be used to confuse the poor oafs so they die without mating, never able to find the females.

Harvester – Reports to AA indicate that process-grape harvesting will be "going mechanical" fairly rapidly . . . even though a standard-trellis machine sells for $23,500, and one adapted to the Geneva double-curtain costs $26,500. At least 40 acres of grapes are needed to justify the expense of a harvester.

Next likely step . . . going to bulk bins for grapes, like the ones used for handling processing apples. Strangely, bulk bins do not result in an unacceptable number of squashed fruit.

New Apple – A new Yellow Delicious apple is making news in the State of Washington, and shows promise for the future. Called "Prime Gold," the apple was discovered as a mutation on a Golden Delicious tree. "Prime Gold" has white lenticels and clear stem wells and calyxes. It appears to be more bruise-resistant than Goldens, stores exceptionally well, and shows resistance to bitter pit.

Plastic Hawk – "Hector" is a life-sized plastic hawk being used by some farmers to scare away birds intent on gobbling berries, fruit, or sweet corn. Trials indicate that birds remain fearful of this device when used according to instructions. For details, write Pitcher Plastics, P. O. Box 547, Bath, N.Y. 14850.



"I can't see the need for the government's hurry to get to the moon. There isn't anybody up there to vote, fax, or save!"

YOUNG APPLE TREES

From years of experience working with fruit growers in Monroe and Orleans Counties (New York), Extension Fruit Agent Dick Norton offers this advice on getting good tree growth the first year (average accumulative terminal growth of 8 to 10 feet):

1. Spring-set trees should be in the ground no later than April 20.

2. Be sure the hole you dig is big enough so you don't have to stuff roots in . . . "cramming" stunts their growth for years.

3. Keep the tree roots from being exposed during planting operation . . . and tramp the ground firmly around the newly-set tree. Dried-out roots are a sure "cure" for rapid growth!

4. Prune back the young 'uns to a whip right after planting . . . no side branches left. Head back to about 20 inches . . . to a bud on windward side.

5. Fertilize newly-set trees with one-fourth pound of nitrate of soda after shoots push out, but not after May 15 in Western New York.

6. Periodically select one windward-side shoot as the central leader, and pinch off the nearby competitors. But don't go overboard and pinch off any shoots that are **not** competing with the central leader you've chosen.

7. Spray young trees regularly so their leaves can function as the food-producing factories they're meant to be . . . and the tree can use that food to grow.

8. Clean-cultivate the newly-set orchard during May and June . . . and keep down the competing vegetation right up to the tree trunks. Don't do it with herbicides, though, on trees 1 to 3 years of age until they are established in sod.

9. Sow a cover crop of rye or buckwheat at the last cultivation of the newly-set orchard, usually around the first of July in Western New York.

If you want to challenge, discuss, or agree, contact R. L. Norton, Farm and Home Center, 249 Highland Ave., Rochester 14620



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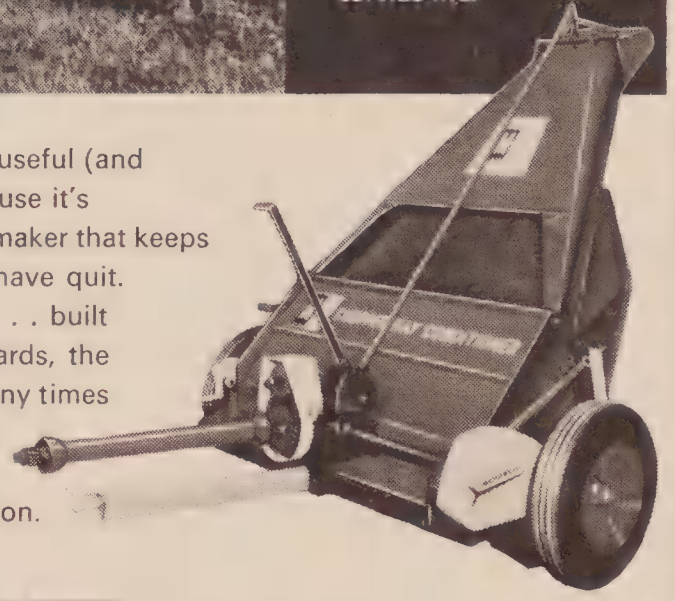
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*TRADEMARK

A RAT-FREE FARM?



For the last five or six years we have enjoyed a rat-free farming operation . . . not a showcase farm nor a play farm . . . an operated-for-profit, family-sized farm. Now the mice are gone, too!

A score of years ago this would have been classed as a dream; ten years ago it would have been considered wishful thinking. Now that "far out" dream, that wishful thinking has become a reality. The tools have been available a long time; only recently have we begun to learn how to use them.

Steel traps . . . poison-everything poisons . . . lockout programs . . . all are of long standing . . . and ineffective. Warfarin and Prolin seem to be spectacularly successful. Trap one rat, and all but the fools become wise. Dead dogs and cats, sick children, are too high a price to pay. Rats can break a lockout in jig time.

Beyond just fouling up whatever they encounter, rats and mice can and do cause hundreds of dollars of damage each year on even a moderately-sized farm. Man has hated rats since recorded time and before, for good reason. Mice are likely to be tolerated simply because at times they are amusing and cute; but they can be expensive entertainment.

A rat-free farm doesn't happen; it has to be planned. Behavior and activities must be studied (that can be a sizable education in itself). One has to learn to "think like a rat." Once the operator has learned how, when, where, and why these rodents live and behave, most of the problem has been solved.

It has been said many times that it is impossible to poison a well-fed rat. Nonsense! Make a poison attractive and tasty; rat and mouse will gorge themselves on it, hungry or not!

Presentation is very important. Consider Mr. Rat or Mini Mouse as a prospective customer. Knowing how a customer spends his time and where he spends it should tell the salesman where and when to display and advertise. I suspect that rodents are just about as susceptible to "impulse buying" as a supermarket shopper! Make the display; make the sample tasty; keep the supply fresh; and by all means place where the traffic is!

Our farm is a combination grain and turkey farm. That means that stocks of feed and grain are all over the place, which in turn means a rodent smorgasbord. In every storage area, preferably near doorways, we maintain at least one small feeding station (display sample) usually screened by a panel or behind stacks of feed. Customers seldom buy on the run. Warfarin commercial pelleted mix has been very effective. Kept clean and fresh . . . being kept dry is vitally important . . . a handful in a little pile is irresistable; sooner or later every rodent entering that area will buy. It is truly amazing how quickly results become evident. Out-of-town visitors . . . those coming in from meadow or brook . . . succumb very quickly; tough old natives take a bit longer; mice last longest. In just a matter of time, though, we find 'em curled up or stretched out in their final endless sleep. What a satisfying sight that is; one is tempted to gloat over it.

Measured against the cost of damage done, the cost of rodent control is about on a par with fire insurance. It costs us, averaged out over a number of years, close to $60. The demand runs in cycles; some years rodent infiltration is high; another year displays are visited very little.

One thing we can be sure of, given reasonable incentive, rodents will cooperate.

–G.P. Rhodes, Clarence Center, N.Y.



If you're going to be in the Midwest, and have an interest in hogs, be sure and see this hog building at the Henry Clark & Sons farm near Le Claire, Iowa. It's the latest in biological manufacturing setups in the swine business, will handle 3,000 hogs per year. Silo is for high-moisture grain corn storage. Photo: Republic Steel Corp.



by Robert Clingan

BALANCED DIET

A number of years ago a village undertaker told me why he never went to church. As he explained it, he heard enough sermons in his funerals to last him all his days.

The point I tried to make was that if the only sermons he heard were those preached in the final services for someone who had died, he was not getting a very balanced diet. One needs all the assurances the minister can bring when a family walks in "the valley of the shadow of death," but one needs other kinds of sermons for all the other conditions of life and issues men confront as they live out their days upon the earth.

Every minister worth his salt tries to give his congregation a balanced diet. He knows that just as both humans and livestock need roughage, nutrients, calories, vitamins and minerals, every person needs a balanced diet of good Christian preaching. The minister knows that his congregation needs both assurance and irritants, a mixture of hope and challenge. At times the man in the pew even needs to be exposed to some of the uncertainties in the realm of faith that require a person to grope for the faith he needs.

If you are to receive the balance you need, you need to be open to your minister's judgment as to what the needs of the congregation are. He desires to satisfy the congregation . . . but he desires even more to satisfy the One who called him into the ministry, and who has first call on his loyalty and the direction of his life.

And if you are to receive the balanced diet you need, you will have to be fairly regular in your attendance at church. The person who attends only once a month will never receive the balanced diet his pastor has planned.

It is also important to be patient and responsive when your pastor supplies your diet with what he believes are needed roughage and irritants. For example, many ministers sincerely feel that one of the greatest moral issues of our time is in the area of civil rights. Their congregations may not share that feeling. A minister may feel that members of his congregation are not aggressive enough in bearing witness to their faith outside the program of the church. Naturally he will try to press these convictions home in his pulpit ministry. These messages may be what the congregation cares for least but needs most. A minister who feels these issues deeply must proclaim them to the congregation as a part of the balanced diet from the pulpit.

Encourage your minister to bring to your congregation the balanced diet it needs . . . messages of peace of mind, challenges to be daring and provocative, the hope of life everlasting, and an interpretation of the hand of God in history, the building up of the church as a fellowship of love and concern. The diet will include moral and social challenges, and the promise of forgiveness when we fail and fall short of our "high calling."

It will include the unity of the church, called ecumenicity, and an appreciation of historic observances and sacred signs and symbols. It will also include that sense of the immediate presence of God and his leading that escapes all institutional forms and patterns.

Faith and works, promise and service, fellowship and progress, personal piety and social action, the stewardship of time and wealth, and the world mission of the church, all belong in the diet of a Christian who receives what he should in the life of his church.

FARM POLICY

A summary history of U.S. Agricultural policy developments since 1900, and 53 outstanding documents which have marked the course of national farm programs in this century, are contained in a new book by Senator George McGovern of South Dakota, **Agricultural Thought in the Twentieth Century,** released by the Bobbs-Merrill Company, Inc.

The volume is one of the publisher's **American Heritage Series** intended to provide a documentary library of original source materials which have influenced American thought and history in many fields.



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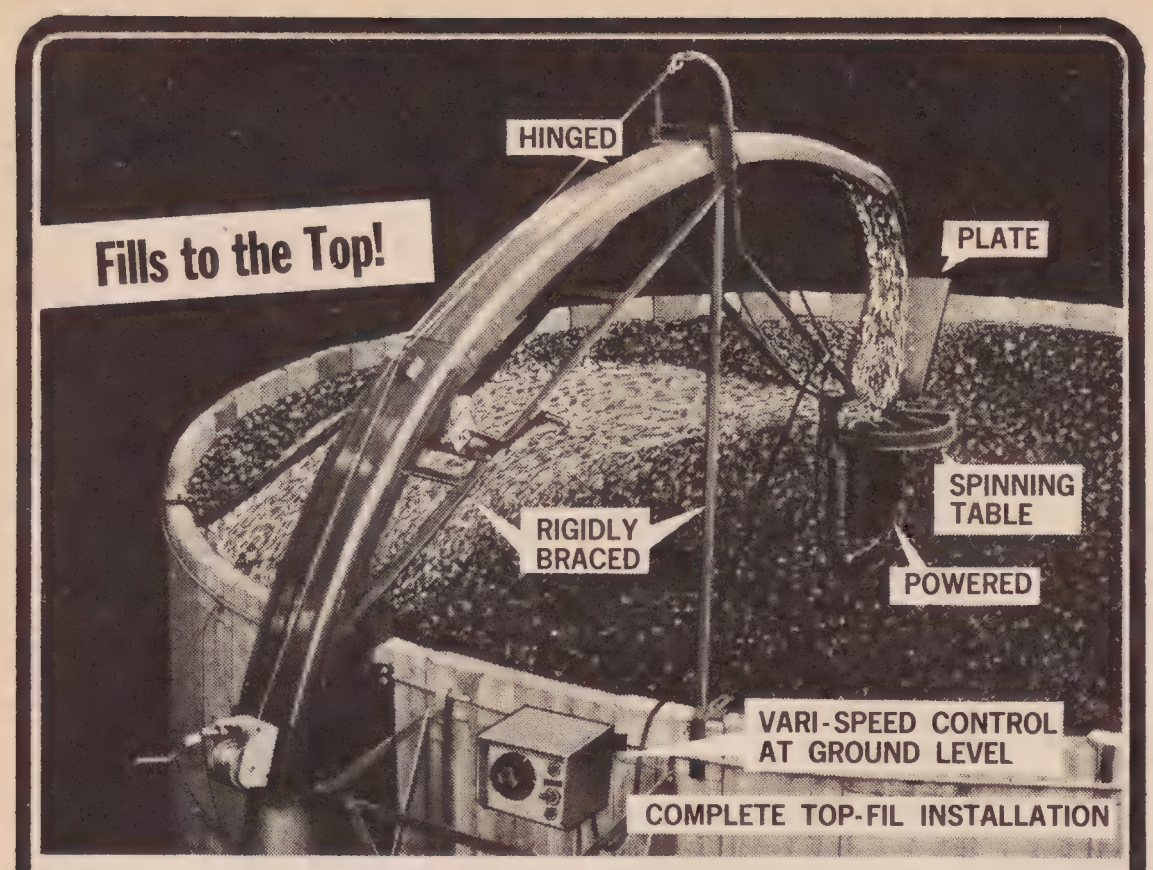
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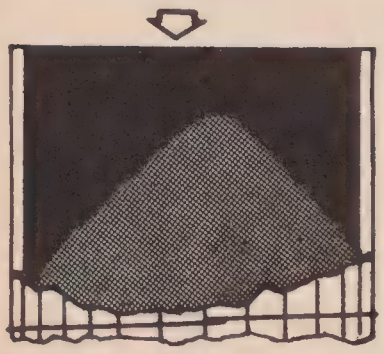
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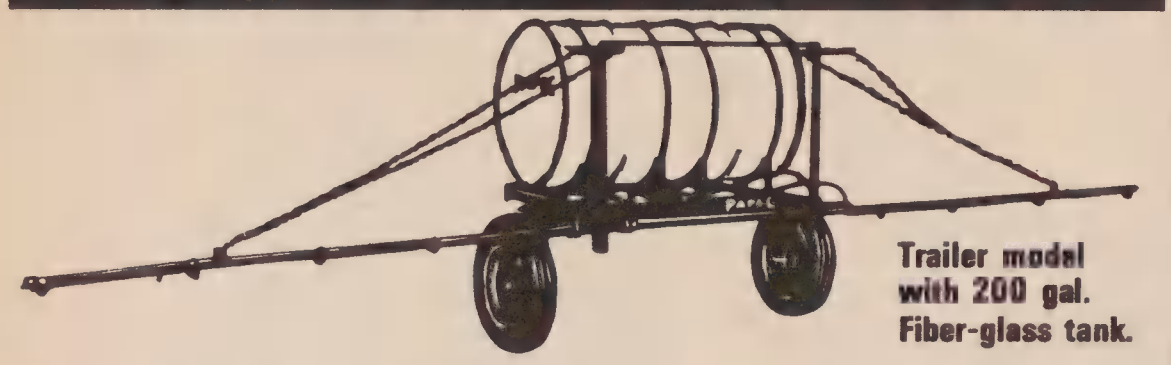
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EVERYONE WANTS to visit Alaska, and in recent years we've had difficulty getting enough space to take all the people wishing to go there with American Agriculturist. For that reason, we are offering two identical **Alaskan Holidays** this summer. The dates are **June 22-July 5 and August 11-24.** For the most part, they will be repeats of the very popular tour we had last year when we travelled into the interior of Alaska and saw far more of our 49th State than the casual visitor usually sees.

Our vacation starts with a wonderful day in **Victoria, British Columbia,** where we take a sightseeing tour of the city and visit the lovely Butchart Gardens both by daylight and at night when they become an iridescent fairyland. Starting north, we cruise the calm blue waters of the famous Inside Passage on the luxurious Queen of Prince Rupert and a large ship of the Alaska Ferry fleet. This is one of the most beautiful cruises in the world, and we know you'll enjoy every minute.

We disembark at **Juneau,** Alaska's capital, and in addition to the city's attractions, we drive to Mendenhall Glacier to see blue compressed ice thousands of years old and then on to lovely Auk Lake.

Skagway comes next, and from here we follow the "Trail of 98" on the famous narrow gauge train of the White Pass and Yukon Route to Whitehorse. We have a full morning at leisure to roam this frontier town as we wish.

Our next stop is **Fairbanks,** and while there we will cruise the Tanana River on the only passenger sternwheeler operating in Alaska. We'll go ashore to visit an authentic Indian summer camp where natives still fish, trap, and hunt to make a living. Touring the city of Fairbanks, we see a Gold Rush Town reproduced in every detail and pan for gold in Mining Valley.

Our stay in **Mt. McKinley National Park** is an experience we'll never forget. A filling "sourdough" breakfast gives us a good send-off for a day of sightseeing. We drive to Eielson's Visiting Center with its unsurpassed views of Mt. McKinley, highest peak in North America.

Anchorage, Alaska's largest city, follows, and two exciting side trips are planned for our enjoyment — a beautiful drive to Portage Glacier and an excursion to Matanuska Valley, one of the nation's best known agricultural areas. It's particularly famous for growing 41-pound cabbages and 7-pound turnips, as well as giant potatoes and carrots.

From Anchorage we have the opportunity to take a side trip to **Nome** and **Kotzebue** if we wish. We cross the Arctic Circle on our way to Kotzebue, second largest Eskimo village in Alaska. At Nome, we'll visit the gold fields, ride a walrus skin boat on the Bering Sea, and browse in the fascinating shops for ivory, jade, and fur souvenirs. Those taking this side trip will arrive home August 26. Plan on going "North to Alaska" with us this summer.

Caribbean Air/Sea

We have had several very successful Air / Sea Tours to South America, but this is the first time we've offered one to the Caribbean. The dates are **May 31** to **June 16.** The cruise portion of our trip will be aboard the M. S. Prinses Margriet, a deluxe passenger freighter of the Holland America Line, and our ports of call will be Curacao, Aruba, La-Guaira, and Trinidad.

The Island of **Curacao** in the Dutch West Indies has the quaint, fairy-tale charm of the Netherlands itself. We visit Willemstad, capital of Curacao, where shopping is a delight. Because of extremely low import duties, European articles of every description are available at very low prices. We'll want to be sure and stroll over the Pontoon Bridge to Punda, oldest section of Willemstad, and see the floating market where small schooners from neighboring countries are lined up, selling their products.

Aruba is another Dutch island, but quite different from Curacao. We'll take a sightseeing tour around the island and visit the giant monoliths at Ayo, a ghost town at Balashi, and the Pirate Castle. Aruba is another "free port" with intriguing shops and tempting bargains.

LaGuaira is the seaport for **Caracas,** perhaps the richest capital in the world. A spectacular six-lane highway winding

(Continued on page 49)

Your pick

(Continued from page 48)

through the mountains connects the two cities. We'll enjoy a full day of sightseeing in the ultra modern city of Caracas.

At **Trinidad,** we leave our floating home and spend two days on this island of contrasts. More cosmopolitan than the places we've visited so far, Trinidad is British in character but exuberantly Latin in disposition. From Port of Spain, the capital city, we'll take a Circle Island Tour which includes prehistoric Pitch Lake and many other attractions.

A short flight takes us to **Tobago,** the "Robinson Crusoe Island." We'll visit Scarborough, capital and port city, Fort George, Government House, Botanical Gardens, the ruins of Fort James built in 1666 by the French, and many other places of natural and historical interest.

Sightseeing on **Barbados** will include St. John's Church, Sam Lord's Castle, Codrington College, a sugar refinery, and many other points of interest. We'll also have two days at leisure for further sightseeing, shopping, and enjoying the beautiful beach at our motel.

Antigua, a British Crown Colony, is said to be the place where "land and sea make beauty." and it's the last island we visit in the sunny Caribbean. Some of the things we'll see here are English Harbor, once an outfitting center for the British Fleet, Nelson's Dockyard, Clarence House which was built in 1787 for Prince William, and Fort James which guards the harbor entrance.

Northwest Holiday

We don't have room to describe our Pacific Northwest Holiday this month and will tell you about it in the May issue. A few of the places included on the itinerary are Salt Lake City, Spokane, Grand Coulee Dam, Vancouver and Victoria, the Olympic Peninsula, Portland and the Columbia River area, Crater Lake, and San Francisco. Dates for this popular tour are **July 27 to August 14.**

Other Tours

It's still possible to join our **British Isles Holiday (May 5-26),** the fabulous tour to the **Far East (May 23-June 16),** or our **Scandinavian Holiday (June 5-26).** All American Agriculturist tours are planned by our tour agents, the Travel Service Bureau of Needham, Massachusetts, and those of you who have ever traveled with us know this means perfection in every detail.

All tours are first class, escorted trips, with everything included when you buy your all-expense ticket. Fill out the coupon and mail it today, study the folders that will be sent to you, and then take your pick of these wonderful vacations!

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me, without obligation on my part, the following tour itineraries:

British Isles ___ Caribbean Air/Sea ___
Far East ___ Scandinavia ___
Alaska ___ Northwest Holiday ___

Name _____

Address _____ Zip _____
(Please print)

QUACKGRASS

Why does quackgrass inhibit the growth of corn and other field crops? University of Wisconsin agronomists N.L. Hartwig and K.P. Buchholtz think the key may be volatile chemicals produced by quackgrass roots and rhizomes.

If quackgrass is destroyed by herbicides before corn is planted, its inhibiting effects persist for several months. Tillage, which exposes the soil to the air, reduces the inhibition period.

Corn planted in fields infested with quackgrass doesn't grow very well, even though mineral nutrients are available. Adding excess nutrients to the soil doesn't help, either. Apparently, the corn can't absorb enough mineral nutrients (such as nitrogen, phosphorus and potassium) when its roots are close to quackgrass roots or rhizomes.

When quackgrass is present, the corn crop grows much better if the soil is disturbed. Tillage substantially reduces the competitive effect of quackgrass, even though tilling doesn't kill the quackgrass.



New Saw. Free Kit.

McCulloch's new chain saw is just $188.88* during this special introductory offer. The new MAC 10-10 AUTOMATIC features automatic oiling of the factory-installed 16" bar and chain. It's powerful. Lightweight. Rugged and easy to use. Ideal for spring cleanup tasks—like clearing away winter storm debris, trimming or felling trees, camping, or you name it.

McCulloch's $35* chain saw accessory kit is free with the purchase of a new Mac 10-10 Automatic. The Weekend Woodcutter's Kit contains 10 useful chain saw accessories, including spare chain, fuel can, complete sharpening kit, and more.

Get both kit and saw for the price of the chain saw alone. Offer good at participating dealers for a limited time only. See your McCulloch dealer. He's in the Yellow Pages.



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*Manufacturer's suggested list price.

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THE TRIPLE-DECKER

by Gilbert Jaeger*

MOST of us agree that, for table egg production, new housing shall be caged housing. What goes inside such a house, equipment-wise, depends on the needs and beliefs of the owner. What may go into a complex-type-operation house may be different than that found in an individual building.

For the purposes of this article, assume a nonautomated house . . . that is, hand egg collection, electric feed cart and deep-pit manure system. To compare prices, we will use three birds in a 12×18-inch cage, not necessarily because this is a recommendation, but because this is what poultrymen are doing. (I would rather use two birds in a 10×16-inch cage.) We will use a 34-foot wide building with a single floor to compare both triple-and-double decked situations.

How Come?

Why triple-deckers? The first answer that comes up is **finances.** A partial budget may provide some clues.

Using our one-floor, nonautomated house, as above, 5040 cages are needed to house 15,120 birds. Double-decked, there are 48 birds in a foot of house in the cage row area; triple-decked, there are 72 birds, or 50 percent more.

In this house, we have two ten-foot end cross-alleys and an egg room. We then have a double-deck cage row 315 feet long (in a house 348 feet in length) . . . or a triple-decker with 210 feet of cages in a house 244 feet long.

More Money

The triple-deck cage house is 104 feet less than a double decker. At $85 per running foot of building, or $2.50 per square foot, building an extra 104 feet for a double decker instead of a triple will cost an additional $8840.

There will be cost items that are interchangeable between the two systems. Cages, as well as feed and water troughs, can be purchased for the same price . . . so much per cage, regardless of whether double or triple-deck. The same fans, feed bin, battery charger, etc., can be used.

There will be a few cost changes. For the longer two-cage-high building we will need more excavation and fill (add $1000), more wiring for lights and fans (add $100) . . . but we will save on dropping boards and 2×2's (subtract $300), and some on the feed cart. These add up to about $750 more for the two-cage-high than the three.

Totaling the above, we come up with $8840 plus $750 or $9590 additional to stay with double-deck. To borrow this over a 20-year period at a rate of .08024 means you will pay back $9590 in principal and $5810 for interest, or $15,400 in total. This would be $770 a year, or about five cents per bird per year.

Other Items

Cost of housing is not all that enters into the picture, of course. Many contend that you can save time in the triple-deck house. You will feed 50 percent more birds for every foot of aisle you travel, and you will also pick up 50 percent more eggs. This means less mileage per pound of materials-handling for the triple-deck setup.

We will also have 50 percent more manure in our deep pit per foot of house . . . less mileage, shorter trips to clean out at the end of the flock year, and less floor to sweep. There should be a lower total labor effort in the triple decker. This can reflect either in lower labor costs, less labor to you, or more birds for more income . . . in a still larger house.

There are obstacles to overcome in handling a triple-deck house. Those with this housing system, though, believe they can and have successfully overcome them. "If I had known about this house, I'd have had one sooner," said one poultryman.

Water restriction could be a

(Continued on page 51)

*Maine Area Poultry Specialist

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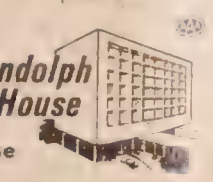
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BAFFLING LEUKOSIS

"To clean or not to clean, **that** is the question." The people attending the last Poultry Health Conference at the University of New Hampshire were told that thorough cleaning between flocks . . . and other precautions . . . had reduced leukosis in Maine broiler flocks, but on the Delmarva Peninsula and the Shenandoah Valley there was less leukosis when the litter was reused, the pens had dirt floors, and the windows not screened!

Although there are really no useful tools for the industry in leukosis control, progress now is tremendous and we will soon have some control measures, according to Dr. Frank Siccardi, Research Veterinarian, USDA Regional Poultry Laboratory, East Lansing, Michigan.

It is generally recognized that lymphoid leukosis and Marek's disease are different diseases, he said. The bursa of fabricus, a gland just above the vent, is a key organ.

Lymphoid leukosis develops very slowly until the bird nears maturity. When a pullet is infected with lymphoid leukosis, this gland enlarges rapidly as the pullet matures. After this the progress of the disease is rapid. This enlarged gland can be felt in maturing pullets if they have lymphoid leukosis.

Marek's disease may show up as early as four weeks; it can appear at the same time as lymphoid leukosis and can affect the same organs. The bursa of fabricus, however, isn't enlarged as with lymphoid form.

"We have cut down the leukosis condemnations by good sanitation," reported Dr. Everett Bryant, Penobscot Poultry Company, Belfast, Maine. He commented that Marek's disease is about as contagious as infectious bronchitis . . . the incidence depends on age of exposure, dosage of the virus, and the genetic resistance.

Their control practices include a thorough cleanup between flocks (using a 400-pound-pressure spray rig), disinfectant, insecticide, and fumigation if possible. No feed is carried over between flocks. Other measures include elimination of manure piles, bird-proofing buildings, lock the door, put up "no-entry" signs, rodent control, and making servicemen clean thoroughly between flocks.

Triple-decker

(Continued from page 50)

problem. The top water trough is just above most people's eyes. Yet the only water restriction problem I've observed or heard of was on the **bottom,** not on the top deck.

Feeding the top of the three decks, or working augers for three instead of two decks can be difficult. But as one man in Union (Maine) observed, "You **can** learn this." **Egg Collection** on the top deck, or bending to reach the lower egg tray, is worrisome to a few. There is at least one hired man who has been picking up better than 3000 eggs per hour in a triple-deck cage system.

As for ventilation, air seems to travel over and under cages more easily than through them. With a third deck, do we set up an additional barrier to air movement? Possibly, yet a well-planned and operated exhaust system does not seem to be overtaxed. Where studs have been lengthened to allow more head room, seemingly perfect ventilation conditions have been found.

Regular cleaning of dropping boards aids in air movement. An Albion (Maine) poultryman reports, "The more birds you put in a building, the more heat you have, and the more foul air. But I find the fans keep air good.

"Only one or two fans in each bank take care of cold-weather air movement, and the full bank holds house temperatures from soaring in summer."

One must pay more attention while observing birds in the top and bottom decks of a triple.

Production—Two field trials in a triple-deck house have shown that there need be no difference in production from one part of the house to another. We checked decks, rows, and areas . . . 72 divisions in a 12,000 bird house . . . and could find no difference between the divisions, or any interaction between decks and rows, or decks and areas, etc.

Because of the initial cost and labor advantages, we surely will see more triple-decked houses. The possible barriers to success are apparently surmountable.

We will recommend that thoughts must be directed first to results. The pullet you put in the house, and the management you practice in the laying house are still the greatest. The people who can put good practices to use will get good results from a triple-deck cage house.

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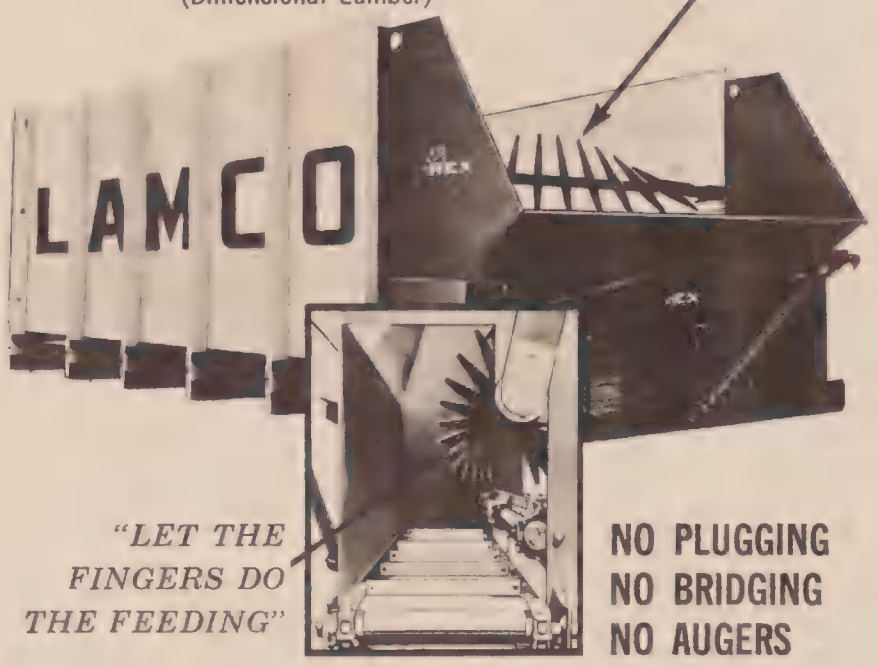
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Dates to Remember

April 4-5 - Northeast Dairy Conference, Statler-Hilton Hotel, Baltimore, Md.

April 8 - Annual meeting of New York State Guernsey Breeders' Co-op, Inc., Hotel Augustan, Cobleskill, N.Y.

April 8-12 - 17th Annual Cattle Reproduction and Artificial Insemination Short Course, University of Connecticut, Storrs, Conn.

April 16 - Woodsman Safety Day for Loggers, Hardwick, Vermont.

April 16 - New England Neppco Poultry Conference, Colonial Inn, Wakefield, Mass. (Route 128, Exit 32).

April 16-18 - Swine Building Conference for swine producers, building equipment and feed companies, The Pennsylvania State University, University Park, Pa.

April 17 - Woodsman Safety Day for Loggers, Randolph, Vermont.

April 20-26 - National 4-H Conference, Chicago, Ill.

April 21 - Picnic Lunch, New York Flying Farmers, Fulton Airport, Fulton, N.Y.

April 27 - Second Annual Schoharie County Maple Festival, Jefferson, N.Y.

May 1 - Annual Meeting New Jersey Agricultural Society, Cedar Garden Restaurant, Mercerville, N.J.

May 4 - 20th Annual "A" Day, Delaware Valley College, Route 202, Doylestown, Pa.

May 14 - Delmarva Poultry Booster Dinner, Youth & Civic Center, Salisbury, Md.

May 18 - National Antiques Show, Madison Square Garden, New York City.

May 19 - Rural Life Sunday.

May 20 - Hess's International Flower Show, Allentown, Pa.

May 25 - 4-H State Day, Vermont.

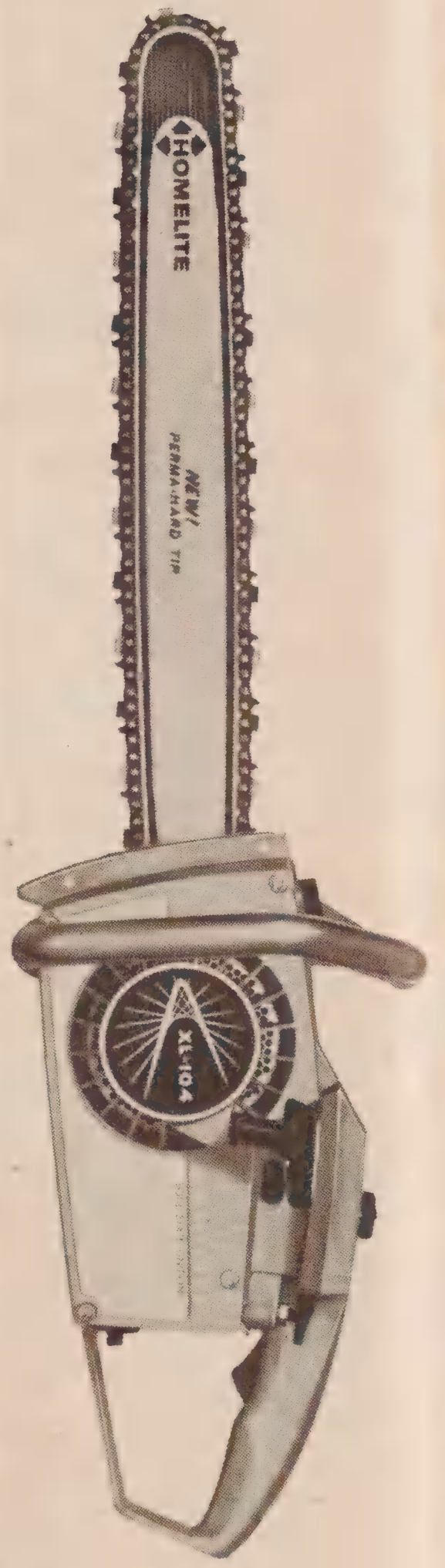
May 25 - Maine Dairy Day Celebration, Lewiston, Maine.

INDOOR SPORT

A common housefly, with an uncommon wit,
Stands twiddling his feet as I glare at it.
We're in for a battle — He's well aware
I'm aiming to swat him — but does he care?
With his two forefeet he covers a grin
That's sassy as Satan and wicked as sin.
"So you think you'll get me," he seems to say
As the swatter comes down and he flits away.
Then off on a circuit all over the house,
With a buzz like the sound of an angry spouse,
He leads me a chase from room to room,
Till he settles for breath on the kitchen broom.
"Aha, I've got you," I gloatingly think . . .
When the swatter falls he's scrubbing the sink;
And from there he sets off on a zigzag flight
To pose like a Buddha on the ceiling light.
As I climb to the top of a rickety stool
His eye glints a warning, "You'll fall, you fool!"
Which I forthwith do — and the fly in a flash
Retreats through a crack of a window sash.

Mannie Jessup

Solid



The Homelite XL-104 chain saw features solid state ignition, to make it always smoother-running. It has Easy-Pull starting, automatic chain oiling, and a manual override. It cuts through 15-inch logs in 12 seconds, yet weighs only 11½ pounds.* Take a test cut with the XL-104 now, at your Homelite dealer's. He's listed in the Yellow Pages.

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8-24

We all like to see . . .

A BEAUTIFUL FARMSTEAD

by Hugh Cosline



A neat farmstead is a thing of beauty . . . and a joy forever.

A **NEAT FARMSTEAD** like the one shown here is a thing of beauty. As I drove by, I was intrigued to stop and snap a picture.

Then I fell to speculating as to why more farmyards are so different . . . messy and downright unattractive.

My first conclusion was that some people are neat either naturally or by training, while others are just the opposite. It does seem, however, that the man who lacks neatness might improve, especially if he takes time to compare his farmstead with some that look good.

Don't See Them

It's a fact that we become accustomed to our surroundings and fail to see them with a clear eye until something jolts us. I must confess that I lacked some training in neatness as a youth.

What makes a farmyard look bad? For one thing, weeds, especially burdocks. When I see the junk around some farm buildings I can readily see why the weeds aren't mowed! But using an hour or two early in the spring could result in taking them to a junk heap so the yard could be mowed when needed.

Equipment scattered all over the place looks bad. Of course, a farmer can't put a machine away every time he uses it when he expects to need it again the next day; but a machine soon shows the result if it is left standing outdoors even for a few days. Besides that, there's ample evidence that keeping equipment under cover pays off in cold cash.

Lack of Paint

Lack of paint shows, especially if buildings have been painted . . . but too long ago. Hiring buildings painted runs into money fast, but any farm family can slap on paint; and most can stand a budget item for that purpose. A good way to do it is to plan to do some painting every year.

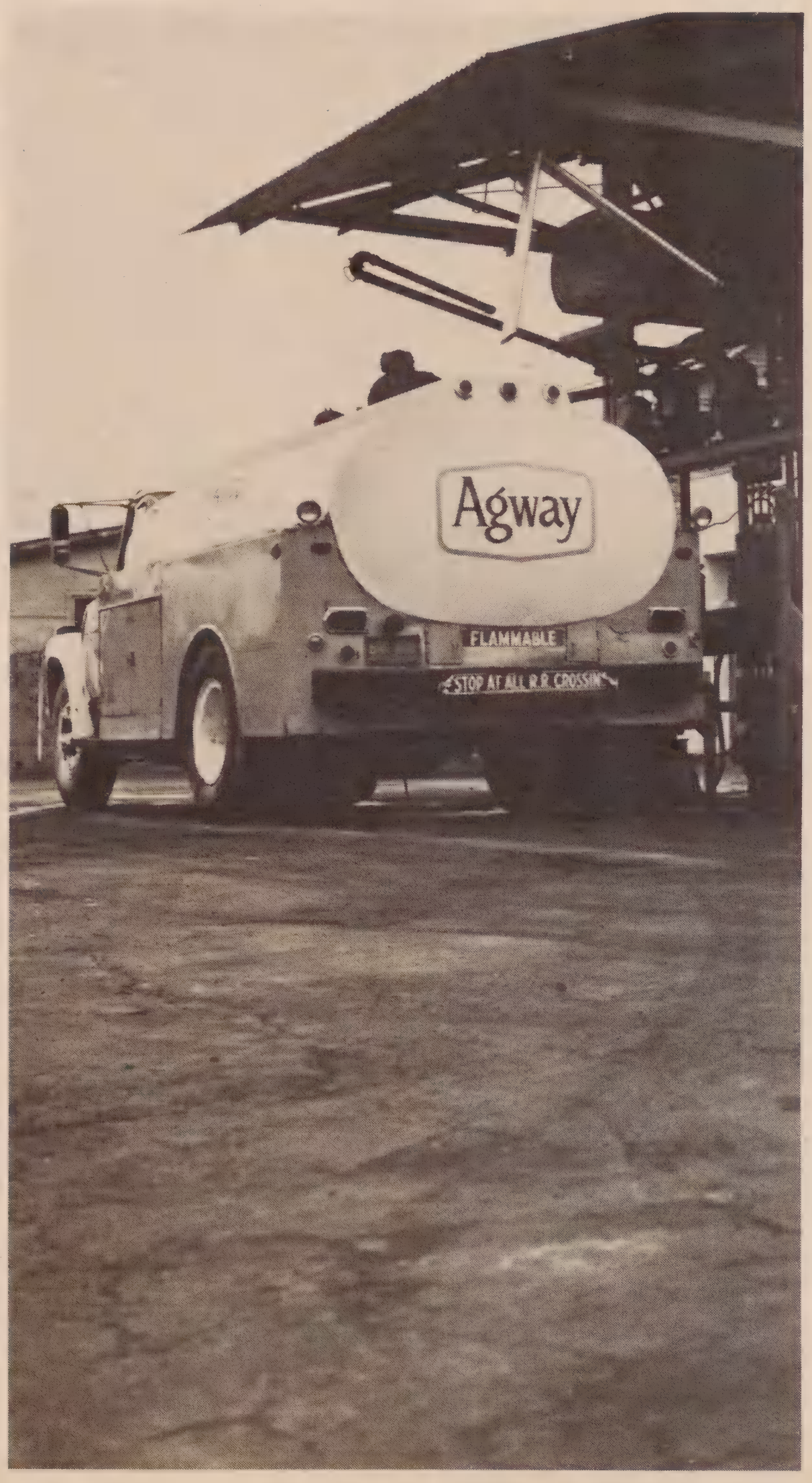
Next comes absence of flowers and shrubs. An attractive front yard takes a little knowledge, but it's easy to learn. The important thing is to choose those flowers and shrubs that require little maintenance. Among the best are daffodils, lilacs, and mock orange. Among the annuals, snapdragons, zinnias and others are easily grown, and flower over a long period.

In a way a beautiful countryside can be a community project, and the Grange is a good place to start it. You'll find that the young folks can become interested. Occasionally, of course, improvement by just one family can jog the neighbors into action!

Incidentally, one eyesore all too prevalent needs community action. I am thinking of old barns and houses that are falling apart. If a building is usable, of course it should be maintained . . . but many are not. I realize that the lumber you get from wrecking them seldom pays for the labor, but if too far gone why not ask the owner and the local authorities for permission to burn them?

Generalities are dangerous, but it is my observation that on the average New England farmsteads look better than those in the Empire State. Let's do something about it!

If you owned a gas station where else would you buy your gas?



Where else could you ask questions about price, product, equipment—and get answers? Where else could you expect to be treated as if you owned the place?

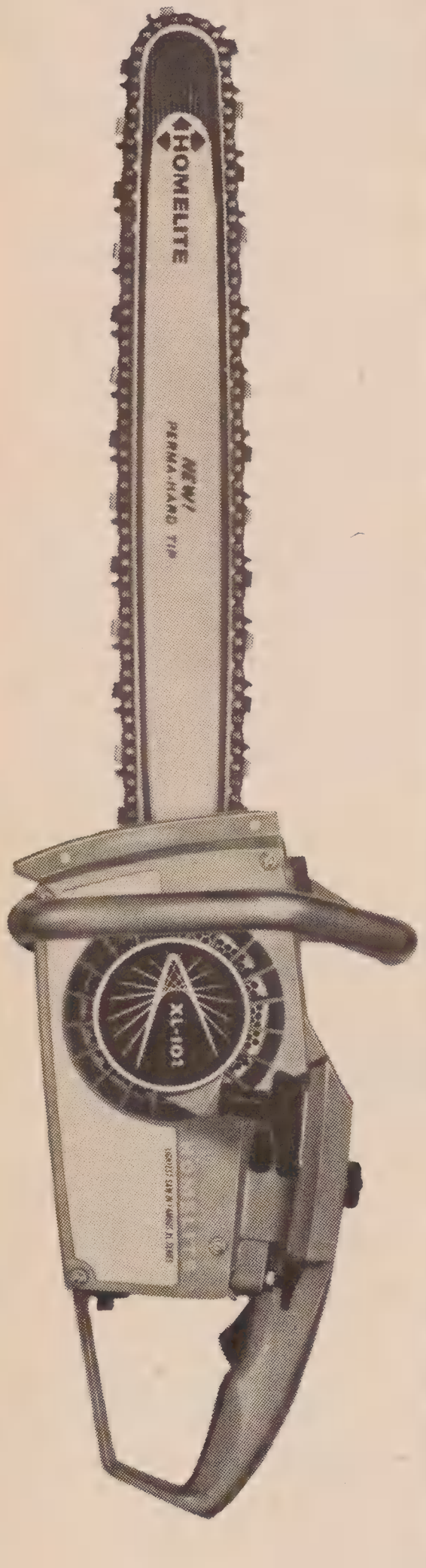
Thousands of farmers buy their gas, oil, grease and fuel oil from Agway—because they do own the place. They have the Agway stock to prove it.

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TRACTOR GOVERNORS

How to Make Them Work For You

by Wes Thomas

YOU should ask your dealer to check governor action each time your tractor engine is tuned. An engine simply doesn't give satisfactory performance unless the governor is working properly.

The maximum speed in revolutions per minute (rpm) specified by the tractor manufacturer represents a compromise of several conflicting requirements, but it is designed to provide satisfactory power output in relation to fuel consumption, wear, and other factors. The specified speed varies among different tractor makes as well as among different models of the same make.

Wear increases rapidly if the tractor is operated at speeds significantly above the recommended maximum. On the other hand, if it is operated slower than recommended, power output suffers and operating costs increase.

Results of checks made at Kansas State University indicate that poor governor operation is reasonably common. In this series of tests, fifty tractors were checked on a dynamometer. Average age of the tractors was just over seven years . . . with a range from twenty years to only sixty hours of use.

Of this tractor group, only ten were operating within 20 rpm of the speed specified by the manufacturer for both high-idle and full-load speed. Of the remaining forty, it was possible . . . through simple adjustment of the governors . . . to run ten at their specified speeds, thus increasing average maximum horsepower by over nine percent while decreasing average fuel consumption by almost five percent. Such results indicate the possibility of your gaining significant benefits at a minimum of expense and effort on your part.

Basically, a governor is a device which automatically maintains a constant engine speed though a load on the engine changes. In spark-ignition engines, the charge of fuel-air mixture is regulated to vary the energy of each explosion. In diesel engines, the governor only controls the fuel going to the engine.

Although modern flyball governors are arranged in many shapes, they have the same operating principle. An engine-driven shaft rotates a set of weights which are thrown outward from the shaft by centrifugal force.

Through a suitable arrangment of levers, rods, and cranks, the motion produced by the outward travel of the weights is transmitted to the carburetor through the control rod (or diesel injection pump). The linkage is arranged so an increase in centrifugal force tends to close the throttle.

A governor-control spring is included in the linkage and arranged so the governor must also stretch the spring as it closes the throttle. Thus, engine speed is determined by the throttle position produced when spring force and the force produced by the weights are in balance. The opposite end of the governor-control spring is connected through a linkage to the hand throttle lever.

When the operator moves the lever to increase engine speed, he increases the spring tension. In turn, the governor lever opens the throttle at the carburetor. The increased engine speed produces more centrifugal force which eventually becomes great enough

(Continued on page 55)

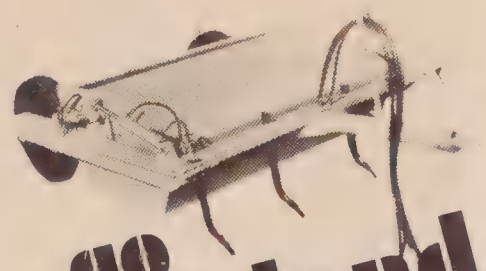
The Song of the Lazy Farmer



When things turn green and start to grow, I like to take the dog and go a-tramping out around the place to look at Nature's springtime face and check the fields o'er one by one to see if work that has been done by my wife and the hired man has properly prepared the land. They're both good workers, I'll agree, but then I always like to see how things progress with my own eyes; it doesn't hurt to supervise and use all my experience plus my superior common sense to help them do the job up right despite the fact they're not so bright.

Then when I'm sure they're on the beam, I wander down where I can dream about the day that's coming quick when I can sit down by the crick and catch myself a string of fish that satisfies my fondest wish. I'm telling you, this time of year is 'most the best we have 'round here; we've said goodbye to winter clime, and though it's not quite summertime, anticipating joys to come is always nearly half the fun. The only trouble with the spring is that I always get something like rheumatiz or other quirk that cuts down sharply on my work.

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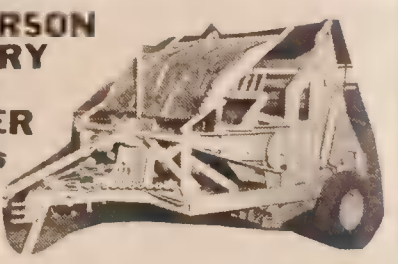


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Dr. Naylor's STOP-A-LEAK

Tractor governors

(Continued from page 54)

to overcome the increased spring force and partially close the throttle. Thus, engine speed restabilizes at a higher value.

It's important for the operator to set the speed control lever high enough to meet the maximum power for a job, and not attempt to "throttle back" to the minimum possible speed. When the load on the engine increases, there must be enough tension on the governor control spring to open the throttle and allow the engine to come up to the required power output.

Speed Droop . . . The speed of an engine is higher at no-load than at full-load. This speed drop-off with an increase in load, present in every mechanical governor, is referred to as **speed droop.** Speed droop has one advantage . . . it helps prevent "overshooting" or "hunting" of the governor when fuel quantity is corrected during engine-load changes.

When an engine is operating with the governor in equilibrium, engine speed must change a definite amount before a change in centrifugal force is great enough to overcome friction in the joints and lost motion in the parts to be moved. If friction or lost motion is excessive, the governor will move a large distance after it starts. Then it will overshoot, creating a second correction in the opposite direction. This "hunting" condition . . . which can produce large variations in speed . . . is created by a worn-out governor.

A check of engine speed at no-load is not enough. Speed must be checked at full-load with the same throttle setting. Therefore, a shop dynamometer, or other means of applying a controlled-load is necessary. The load should be increased until the throttle plate just reaches and remains at the fully-open position, or the pump control on a diesel engine just reaches its extreme position.

Specified speed at no-load is given in operator and service manuals. (Full-load speed specifications seem to be less readily available). Dynamometer manuals give engine or PTO speeds for many makes and models. The Nebraska Tractor Test is another source (refer to Power Take-off Performance, Varying Power, Fuel Consumption using the speeds listed for no-load and maximum-load).

If the droop exceeds allowable limits, first check for wear at the joints in the linkage between governor case and the carburetor . . . as well as for binding or sticking of the linkage.

After correcting deficiencies, recheck no-load and full-load speeds. If speed droop is still excessive, the internal working parts of the governor should be examined. In most cases, replacement of the bearing or other wear surfaces of the moving parts is necessary to restore proper operation.

HORSES ARE BIG BUSINESS

THE Pennsylvania State Reporting Service and the Penn State Extension Service have completed a comprehensive horse survey, financed with funds from harness racing revenues.

The Pennsylvania Department of Agriculture wanted to know how big an economic impact horses have on agriculture and agribusiness. To get the answers, 10,000 questionnaires were mailed to horse and pony owners; about 4,800 were completed and returned. Some people thought the questionnaire "nosey" and others thought it was "none of their business," but enough cooperated to prove that horses are really big business.

Way back in 1910, when the family doctor switched from Old Dobbin to a car, the decline of horses began and continued until 1959, when the trend changed and riding again became very popular. In the Keystone State alone there are 85,000 horses, valued at $40 million. The feed they eat in a year costs $13 million; blacksmithing services amount to $2.1 million. Add to that veterinarian charges of $1.8 million, and another $2.8 million for riding clothes, boots, and bridles.

The big majority of the horses are in the pleasure classification, and included are nags, plugs, ponies, standardbreds, and thoroughbreds. Of the 11,500 work horses, 90 percent are owned by Amish. Standardbreds account for 14.2 percent, followed by quarter horses (14. percent) and thoroughbreds (10.7 percent). Others include Arabians, Appaloosa, American Saddle, Tennessee Walker, Morgan, and Palomino.

A third of the horse owners keep their animals at farms or boarding stables; 58 percent keep them on farms . . . their own or someone else's.

What does it cost to keep a horse? On the average about $250 per year, broken down as follows: hay, grain and bedding add up to $150; the biggest chunk of incidentals . . . tack and equipment . . . takes $33; the blacksmith gets $25, the vet $25, clothes and boots cost $14, and vitamins and health aids $7.

Horse shows are the most popular activity, followed by organized trail rides, 4-H club activities, and fox hunts. Incidentally, the cost of transporting horses to races, shows, trail riding areas, and other places costs a pretty penny . . . at least $1.5 million!



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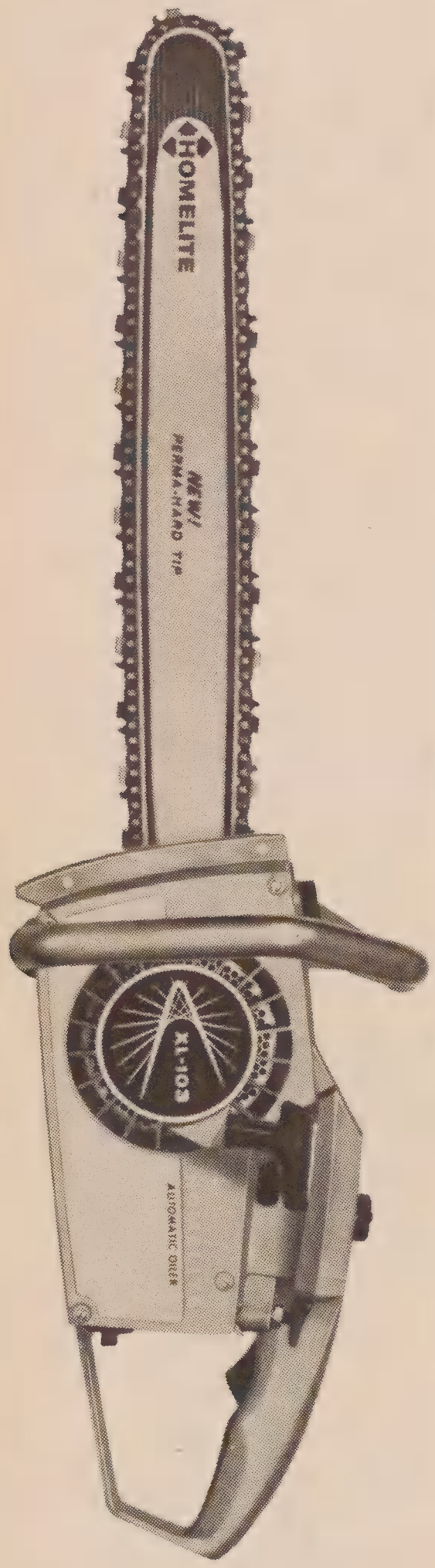
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Looking Ahead To



RETIREMENT

by Hugh Cosline

ONE of the easiest jobs to put off until tomorrow is planning ahead in terms of money management and retirement some day . . . or at least slowing down. Actually, the best time to start is right now, even if you have recently started farming on your own. Before you decide how to handle your estate at both the time of retirement and your eventual death you need to build an estate!

Retirement for farmers is more common than it once was . . . and more complicated. There was a time when most farmers with one or more sons stayed on the farm until death, sometimes (with or without a will) leaving the farm to a son, meanwhile shedding more and more work and responsibility. At other times the farm business was shrunk down bit by bit while the buildings depreciated and the soil fertility dropped. About the only alternative was to sell the farm and buy a home in the nearby village.

Operating a farm at a lower and lower tempo is less practical than in former years. With the ever-increasing cash expenses, it doesn't take long for the balance sheet to dip into red ink.

Some Facts

To get some facts on the subject I had a long talk with Arthur Bratton of Cornell, a man who has put a lot of study on the problem. What I have to say is the result of that discussion. First Art reminded me of some of the problems to be considered by an elderly farmer and his wife, such as:

At what age should I retire?
What will we do with the farm business?
What will be the important tax angles?
Where will we live, and what will we do with our time?
What will our resources be?
How much will it cost us to live?
Is our will the way we want it?

Age of retirement will vary with financial resources, personal wishes, and health. It's a personal problem, but one that needs a tentative answer in order to consider other questions logically.

There are many possible answers to the question: "What shall we do with the farm?" If a son wants to be a farmer, and especially if he has some training in 4-H, FFA, or in college, turning the farm over to him may be the best solution. A father-son partnership can be entered into while the son is still young, giving him more and more responsibility and a larger financial interest as he gains experience. Or the farm can be sold to him on contract, or by assuming a mortgage.

There are some advantages to selling on contract, if the buyer is a son or a good responsible farmer. The seller retains title to the farm until a substantial amount, usually half, has been paid. And in case the retiring farmer needs to use part of his principal for living expenses, he gets a regular income from payments made on the farm. Also important is the fact that selling on contract will result in lower taxes on the sale price because they're spread over the years instead of all at once.

Taxes due when a farm is sold are far more important than in former years. Without going into details, let's just say that the method of transferring a farm

(Continued on page 57)

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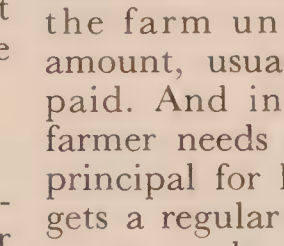


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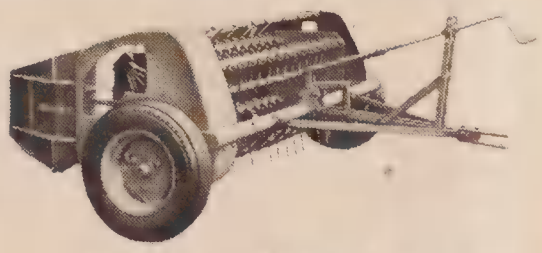
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Retirement

(Continued from page 56)

does affect the amount of tax due, and the way to get the facts is to consult a competent lawyer. In fact, there are many problems on a modern farm that call for the help of a lawyer.

Incorporation

One possible way of farm organization that is becoming more common is to incorporate. This gives the business a legal entity which continues regardless of the owner's death or who or how many people own the farm. It needs consideration, especially in case of a large farm where a father and several sons are operating it.

Many retired farmers live on the farm in a separate house, either the original farm house, one that has been bought when the farm acreage was increased, or a new home recently built. This permits the father to have a garden, help in an emergency, or to give the benefit of his advice when he is asked for it. Unless a man has interests or hobbies, moving to a large village or city brings its problems. Idleness has killed many retired farmers who have been physically active all their lives.

Checking up on financial resources is a must. If the farm is sold on contract there will be regular payments. If it is sold for cash and the money invested, there will be interest or dividends. Depending on the amount paid in, there will be a monthly social security check. There may be other resources.

Next comes matching the income with the expected living costs. If the expense column is bigger than the income column, consider the possibilities for extra income, perhaps a part-time job for husband or wife or both. You can check the amount of social security you will get by reading the pamphlets available, and by calling at your nearest Social Security office.

Life Insurance

Life insurance policies are an asset. In time of great need they have a cash surrender value and can be used as security for a loan. Few men approaching retirement will consider new life insurance, but a man can well give some thought to the amount of protection he has in case of sickness or accident, and the protection his wife will have if she outlives him.

A younger man who is planning ahead for possible retirement may well give even more serious thought to the protection he has for the family in case of his death. Most farmers do not think of life insurance as an investment because it is usually more profitable to plow back any available cash into the farm business.

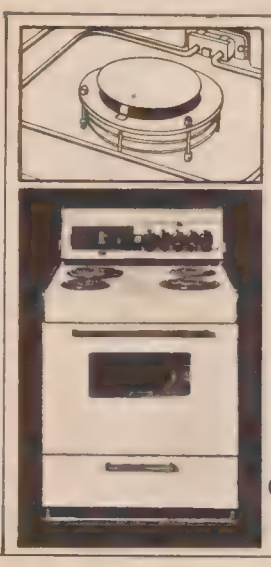
A will is important, even essential. Have you read yours recently, and does it carry out your wishes? Changing conditions may call for a change in your will.

By all means consult a lawyer about your will. Tell him what you want the will to do and he will follow your wishes . . . within a framework that will meet legal requirements. Incidentally, with the growing complexity of modern life, including farming, it is wise to choose a family lawyer and to think of him in terms similar to your family doctor. Yearly checkups with a doctor can keep you healthy; periodic conferences with a lawyer can save you money and perhaps keep you out of trouble.

One situation that calls for judgment and sometimes results in injustice is where a farmer has several sons and daughters, one of whom stayed on the farm and has assumed more and more responsibility. To divide your estate equally among them under these conditions is unjust. Surely the one who has stayed has contributed much, and should receive more than an equal share. In addition, his present net worth may be smaller than that of his brothers and sisters. One way to resolve the problem is to sell the farm to him now. Then his equity will gradually increase, and dividing the balance of your estate equally may be the correct method.

And just as a suggestion about wills, don't write a will which attempts to tightly control your estate long after your death. A **good** will can avoid complications, but a "bad" will can also cause more difficulties than it prevents. Conditions change, and you cannot predict how they will change.

Many farmers who have been "pushed" into taking a close look at their present estate, how they will pass it along to the next generation, and what they will do when they can no longer operate the farm, have been amazed at the many angles to be considered. They have also been thankful that they didn't wait to do it!



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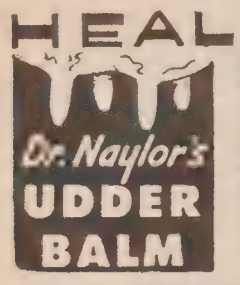
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Grand National AYRSHIRE SALE

SATURDAY, MAY 4TH FAIR GROUNDS, COBLESKILL, N.Y.

— Starting at 10:30 A.M., Sharp —

5 COWS — 24 BRED HEIFERS — 3 HEIFER CALVES — 1 BULL CALF

33 Tops from 28 Herds and Including:

A Bred Heifer whose Dam has	20,430 M	3.9%	805 F at 8 yrs. Act., 2x, 305 D.
A Heifer Calf whose Dam has	20,070 M	4.0%	799 F at 2 yrs. Act., 2x, 305 D.
A Bull Calf whose Dam has	20,993 M	4.6%	965 F at 4 yrs. Act., 2x, 305 D.

The Cows are young and have very good heifer records. The Bred Heifers are due from sale date on. Dams of all Bred Heifers avg. 16,243 M 4.1% 671 F. M.E.
'Betty' has 9 Daus. and a Son in this Sale.

— CHICKEN BARBECUE AT NOON — THEN THE —

3rd "ALL-BETTY" AYRSHIRE SALE

SAT., MAY 4TH, FAIR GROUNDS, COBLESKILL, N.Y. at 1:30 P.M.

Featuring 53 Daughters and 8 Granddaughters of 'Betty'

"The Milkiest Bull in the World"

949 Daus., 1,645 Recs. Avg.: 12,747 M 4.09% 521 F.

7 COWS — 28 BRED HEIFERS — 11 YEARLINGS — 15 HEIFER CALVES

Dams of Yearlings have up to	21,910 M	4.9%	1090 F at 8-3 yrs. Act. 2x, 305 D.
Dams of Bred Heifers have up to	16,309 M	4.4%	723 F at 7-11 yrs. Act. 2x, 305 D.
Dams of Calves have up to	13,170 M	4.1%	542 F at 6-11 yrs. Act. 2x, 305 D.

All Cows but one have records. Dams of most of the heifers have records. 'BETTY' has **more** daughters with 20,000# M (2x, 305 D.) than any other bull and has **more** sons and daughters that have sold for $1000. or more than any other bull.

FREE DELIVERY: Up to 200 miles from Cobleskill to all buyers whose purchases at the "All-Betty" Sale total $2000. or more.

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For Information About "More Profitable" Ayrshires, Write

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70 HEAD—All registered but two!
48 COWS & 1ST-CALF HEIFERS
7 BRED HEIFERS
6 YEARLINGS — 7 HEIFER CALVES
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MARTIN'S SALE STABLES
Blue Ball, Pa. Lancaster County
Mon. April 15, 1968 at 6:00 P.M.
Saddle and Standard-Bred Horse Sale
Mon. April 22, 1968 at 6:00 P.M.
Quarter Horse Sale
Mon. April 29, 1968 at 4:00 P.M.
All-Pony Sale
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Fri., April 26, (7:00 P.M.)—Caledonia, N.Y.
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Sat., May 11, (1:00 P.M.)—Chatham, N.Y.
Chatham Area Auction
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For Information Contact:
Chas. Hebblethwaite, Court House, Belmont (Pike Sale)
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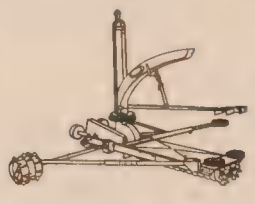
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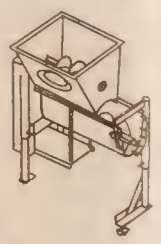
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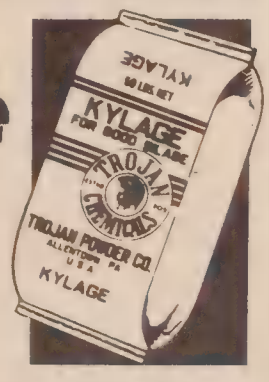
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'Round the kitchen

at Easter

with ALBERTA SHACKELTON



Photo: Reynolds Metals Co.

What a nice way to say "Happy Easter" to your family and guests! Broiled peaches and strawberries garnish this succulent ham. Tiny glazed carrots "topped" with parsley are served with it.

EASTER ALWAYS MEANS spring, no matter what the calendar date or weather. Your Easter dinner, bright with color, served at a beautifully appointed and flower-decorated table, can make gala a celebration to mark winter's end.

Many food traditions are associated with Easter, but a glistening, glazed baked ham and fresh coconut cake remain appealing choices for many a family's Easter dinner. The following menu features both these foods. It also suggests starting the meal with the salad, a long-favored western idea now becoming popular in the east. Recipes are given for starred items.

THE MENU

Citrus-avocado Salad with Celery Seed Dressing. Alternate sections of grapefruit, orange, fresh pineapple (if desired), and avocado on perky crisp chicory.

Glazed Baked Ham*

Golden Spoon Bread*

Mushroom-sauced Asparagus Spears. Add sauteed fresh or canned mushrooms to a tasty cream sauce and serve over fresh or frozen spears.

Tiny brown and serve rolls.

Celery and carrot sticks and your best pickle relish.

Rainbow Sherbet. Small balls of three different colored sherbets in attractive sherbet glasses.

Fresh Coconut Cake*

GLAZED BAKED HAM

What to Choose. Choose a whole or half ham, depending upon the size of your family, the number of Easter guests, and how much you wish left over. If you buy half a ham, make sure you are getting a full half and not just an end portion after center slices are removed.

The butt or heavy half of a ham is more expensive per pound but yields more meat than the shank; it is a little more difficult to carve because of its irregular shaped bone. Refrigerate all hams and use promptly. It is thought that freezing reduces the flavor of ham.

Cook-before-eating hams yield about 2½ servings per pound and fully-cooked hams (bone in), about 3½ servings. Fully cooked hams may be served without further cooking, but heating improves flavor and texture.

The canned hams available in various sizes are also fully cooked. If you decide to choose this type, you may want to ask your meat man to slice the ham in ¼-inch slices and tie it together with a string into its original shape. For baking, place tied ham on a large sheet of aluminum foil and bring foil up to cover sides; heat 15 to 20 minutes per pound. About 20 minutes before ham is done, spread marmalade over top for a glaze.

How to Bake. Follow directions given on the ham packaging. In the absence of these, place ham fat side up on a rack in shallow roasting pan. Insert thermometer into thickest part of ham, being sure it does not rest on fat or bone. Bake in a moderate oven (325°) as follows:

Cook-before-eating ham – 20 to 30 minutes per pound, to an internal temperature of 160°.

Fully-cooked ham – 10 to 15 minutes per pound, to an internal temperature of 125° to 130°.

How to Glaze. A half hour before cooking time is up, remove ham from oven and pour fat drippings from pan. Cut straight diagonal parallel lines on ham about 1½ to 2 inches apart and not more than ¼ inch deep, or cuts will open too wide. Now cut crosswise lines to form diamond pattern. Stud each diamond with a whole clove or plan to decorate ham just before serving.

Spoon a portion of Honey Glaze, orange marmalade, or apricot preserves over ham and bake 30 minutes more, spooning additional glaze over ham 3 or 4 times. For **Honey Glaze,** combine ½ cup honey, 1 cup brown sugar, 2 tablespoons orange juice, 1 teaspoon grated orange rind, and 1 teaspoon lemon juice.

To decorate after glazing and baking, use toothpick to secure a pineapple chunk or quarter orange slice topped with maraschino cherry in each diamond. **Horseradish Sauce** is a nice accompaniment for ham. Combine 1 cup sour cream whipped until fluffy with ½ teaspoon salt and 2 to 3 tablespoons horseradish. Stir in 1 tablespoon chopped parsley or chives.

How to Carve. To slice easily a whole, bone-in ham, allow baked ham to set 15 to 20 minutes after removal from oven. Use a very sharp long-blade carving knife and a heavy carving fork to hold meat securely. Place ham on a platter (sufficiently large to make carver's work easy) so shank will be at carver's right.

Cut several slices from the **thin** side of the ham; this will be nearest or farthest from the carver, depending on whether the ham is from a right or left side of pork. Turn ham to rest on the surface just cut. Make a cut about 6 inches from shank end straight down to bone. Then make a second cut, starting at shank end and cutting at an angle to meet bottom of first cut. Remove this wedge for later slicing.

Cut ham in desired number of perpendicular slices right down to leg bone; release slices by cutting along the leg bone at right angles to slices. Lift slices out all at once with a fork to serving platter or plate. For additional servings turn ham to original position on the platter and slice meat at right angles to bone.

GOLDEN SPOON BREAD

3 cups milk
1 cup yellow cornmeal
4 egg yolks
2 tablespoons butter
1 tablespoon sugar
1 teaspoon salt
2 teaspoons baking powder
4 egg whites, beaten stiff but still moist

Bring 2½ cups milk to boiling and pour over cornmeal which has been mixed with the remaining ½ cup milk. Stir until smooth. Stir in yolks, butter, sugar, salt, and baking powder. Carefully fold in beaten whites. Pour into a greased (bottom only) 2-quart baking dish. Bake in a quick moderate oven (375°) 45 minutes or until set and delicately browned. Serves 6 to 8. Serve with plenty of butter and with maple syrup if desired.

FRESH COCONUT LAYER CAKE

1 medium sized coconut
2¼ cups cake flour
1½ cups sugar
3½ teaspoons baking powder
1 teaspoon salt
½ cup soft shortening
½ cup milk
1 teaspoon vanilla extract
½ teaspoon almond extract
5 egg whites, unbeaten
½ cup milk

Prepare coconut by piercing 3 holes in one end and draining out milk. Place in moderate oven (350°) for 20 to 30 minutes to partially crack shell. Cool; break shell with hammer, and pry out white meat in as large pieces as possible. Pare off brown skin. Grate coconut meat.

Stir cake flour before measuring and then spoon lightly into cup and level off. Sift flour, sugar, baking powder, and salt into large bowl of electric mixer. Add shortening and ½ cup milk. Beat on low speed until well blended and then on medium speed for 2 minutes. Add egg whites and ½ cup milk and beat at medium speed for 2 minutes, scraping bowl frequently.

Pour into 2 paper-lined 9-inch layer cake pans and bake in moderate oven (350°) 25 to 30 minutes, or until cake tests done. Cool in pan 10 to 15 minutes. Remove from pans and remove paper. Cool; fill and frost cake layers with Fluffy White Frosting (sprinkle coconut on frosting between layers). Form frosting in peaks on top of cake. Sprinkle sides and top of cake generously with coconut and press lightly pink and yellow Jordan almonds around edge of cake or make a design in the center.

Note: Any left over coconut may be kept tightly covered in the refrigerator or frozen for a short period of time. Also, you may use the angel-flake type coconut by chopping to make it less flaky and more the texture of fresh grated coconut.

FLUFFY WHITE FROSTING

2 egg whites
1⅓ cups sugar
½ cup light corn syrup
6 tablespoons water
½ teaspoon salt
¼ teaspoon cream tartar
1 teaspoon almond flavoring

Mix well in top of double boiler all ingredients except flavoring. Place over rapidly boiling water and beat constantly with rotary beater until frosting is light and stands in soft peaks. Remove from heat and continue beating until stiff enough to spread. Add flavoring.

VISITING

with

Home Editor Augusta Chapman

Aren't you glad it's April and spring . . . that the grass is getting green and the trees are in bud . . . and that the Easter Season is here to once again remind us of the joy and hope we find in the Resurrection Story? What an appropriate time of year to celebrate Christ's resurrection!

It seemed as if the past winter was unusually long and cold here in Ithaca, New York (probably it's just my advancing age), and I wondered if spring would ever come. Finally it has, and it's good to be alive.

With the coming of spring, most women feel the urge to make or buy some new clothes and want to know what the fashion trends are for the season ahead. Some of the following information comes from the New York office of J. C. Penney Company.

Spring '68 fashions offer a wide range of styles – something suitable for every figure, every age, and every personality. There are several different "looks," and each of us can choose the ones we like and which best suit us.

One of the basic shapes is fit and flare, a fitted top with flare at the hemline. Belts are coming back on coats, dresses and suits – some high, some at the natural waistline, and still others at the hip. Trimmed-down shifts and skimmers continue to be popular, and a bright scarf flipped at the neckline gives a new dash.

The shirt shifts are great for either every-day or dress-up occasions, and the new divided skirt is actually a wide-leg Bermuda. The soft dirndl skirt is back in fashion and goes well with the new slim body shirts. All in all, the tendency is a trim top with ease at the hemline.

Speaking of hemlines, they are still short! Casual skirts are worn three inches above the knee, but only if legs are slim. (A mini skirt on an overweight girl with large legs is unattractive, to say the least). Most spring clothes look best just above the knee. Textured or colored hose are usually shown with the shorter casual clothes.

Just as we had to get used to the pointed-toe shoe a few years ago, now we have to do a complete right-about-face (as is often the case in the fashion world) and adjust to squared-toe, chunky-heeled shoes. My eye refuses to adjust or like the extreme models, but perhaps in time it will.

Spring '68 is again colorful, although a bit toned down. Coral is the newest color; there'll also be lots of turquoise, yellow, clean white, and brown. Certainly, it's easy to dress in an eye-catching way, but the really important thing is to select the best of today's fashion and express your own personality.

Don't Miss The Arboretum

Are you planning a springtime trip to Washington, D.C.? If so, be sure to include a visit to the National Arboretum in your schedule. The daffodils, Japanese quince, magnolias, and crabapples bloom early in April, and the Arboretum's famed azaleas begin blooming about the third week of the month and continue well into May. The azalea collection, about 80,000 plants representing 1,500 varieties, is displayed on 20 wooded acres.

Dogwoods bloom about the same time as the azaleas, with rhododendrons next on the schedule – in early or mid-May. Peonies will flower in late May, and in late June, attention will focus on the day lilies. Fern Valley, an area given to fern and wildflower species, also is a June attraction.

You'll find the Arboretum at 28th and M Streets, N.E., Washington, D.C. A printed guide to the grounds is available at the gatehouse.

"Don't serve children empty calories for treats," say U.S.D.A. nutrition specialists. They suggest nutritious orange suckers and give the following directions for making them:

Dilute a 6-ounce can of frozen orange concentrate according to directions on can. Pour into an ice cube tray that releases cubes with little or no melting. Freeze with refrigerator or freezer control set to "fast freeze." When cubes are partly frozen, place a sucker stick or wooden skewer into each cube.

When suckers are frozen solid, remove cubes from tray, place in a plastic bag, tie top of bag in a knot, and quickly put suckers back into freezer.

SPRING FORSYTHIA

by Roy Z. Kemp

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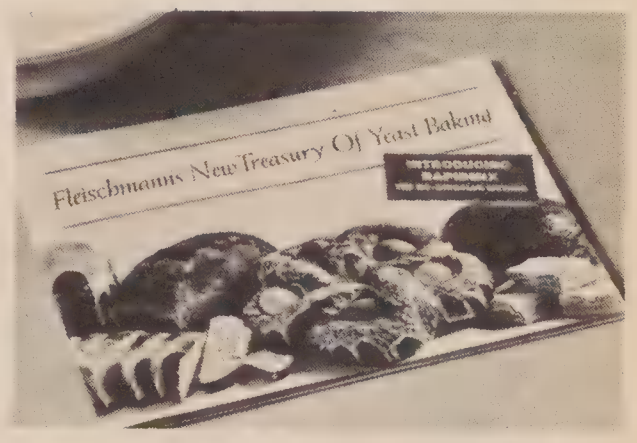
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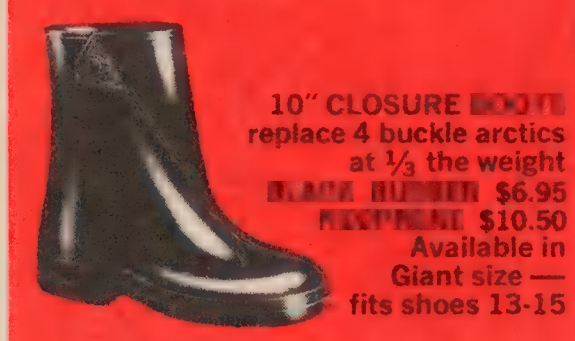
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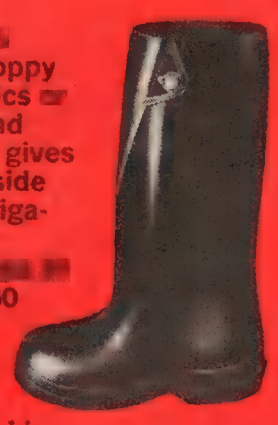
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GARDENING REMINDERS

by Nenetzin White

Start with a clean garden. You can save a lot of headaches later in the season by practicing a bit of simple hygiene now. Since most insect and disease pests are harbored over winter on old leaves, twigs and stalks, it makes sense to clean up and get rid of them. Particular problems arise with roses, peonies, phlox, iris and mums; black spot, mildews, thrips, grubs and blights winter over in their old foliage.

Suggestion — when you have removed the old leaves and debris, use a good all-purpose rose spray or dust on the entire garden area and on the mulch surrounding your plants. This should be a combination insecticide and fungicide spray or dust. It will kill spores and eggs before they get started.

Mulch removal. Don't remove all of your protective mulch the first warm day. Do it in easy stages. You can do lots of damage by trying to remove a mulch when frost is still in the ground beneath it. Also, don't try to clean up when the soil is sticky and wet; you'll just compact it.

Even if you did a good clean-up job last fall before you mulched, chances are there will be an occasional tuft of grass or a few weeds. Clean them out right away. An hour of weeding this time of year is equivalent to eight hours in just a few short weeks. One of the beauties of shredded bark mulch (Paygro) is that it does not have to be removed.

Fertilize your annual, bulb and perennial borders. We're still enthusiastic about plain old-fashioned raw, ground bone meal. It's 100 percent organic, won't burn, is slow and even in feeding, and really produces results. We use it at the rate of 10 pounds per 100 square feet.

If you can't locate bone meal, your next best bet is to spread about an inch of dried manure over the area and then apply 1 pound of a 5-10-5 fertilizer per 100 square feet over this. Try to get fertilizer in an all-organic form if possible. It's slower acting, and there's less burn.

Remember that the flowers for your 1969 bulbs are going to be formed this year. People often say their bulbs go "downhill" each year. It's simply that they don't feed them, and they frequently cut off or pull off the old foliage as soon as they have flowered.

It is imperative for future flowering that the old foliage be allowed to ripen by itself. I know it looks messy for awhile, but if you want good tulips, daffodils, or such in the future, don't remove the foliage until it has withered and is completely brown. Frequently, this won't be until mid-June.

Fertilize lawns. I've harped on this so long that you all know the story by now. We're firm believers in a minimum of three feedings per year — in early spring, mid-June, and late August. Again, use an organic lawn food if possible.

Snow mold. If you had rather nasty looking silvery-grey patches on your lawn last fall, or if these show up this spring, it is probably snow mold. With just-right weather conditions, it can be a very serious problem and kill large areas of good grass. It's easily controlled by application of a mercury-chloride fungicide.

Crabgrass. This is a pesky lawn weed, but easily controlled. There are products that will kill it after it germinates in late June, but by far the best method is pre-emergence control. This can be done any time up to June, and it is a selective control, killing the plants of crabgrass as they germinate.

Plan and plant. In our experience and opinion, April is the ideal time to move any members of the pine or spruce family. Shade trees should be in before buds break, too. With larger shade trees, we try to encourage fall or winter planting.

Pruning evergreens. Anytime now is a good time to cut back those overgrown evergreens. Yews, in particular, may literally be "butchered" if necessary to get them back under control. You can frequently cut branches an inch or two thick. Usually and in time, yews will grow new buds and foliage. Arborvitae may also be heavily cut back, and this is the best time of year to do it. Drastic surgery such as this frequently requires professional help.

Pruning shrubs. Hybrid and floribunda roses should, of course, be cut back to 4 to 6 inches above the crown. Feed them at this time too. WAIT before pruning your flowering shrubs until **after** they bloom this spring. Since flower buds for 1969 will

(Continued on page 65)

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What's Your Hobby?

Hobby letters from our readers

Coin Collection

I inherited a small American coin collection from an uncle several years ago. I tried to add to it, but found it very hard to get coins.

Then I started collecting coins from foreign countries and now have at least one coin from 19 different countries. Have found this very interesting and I've even learned how to read Oriental numbers! — ***Mrs. Doris Hurley, Route 1, Islip, N.Y. 11751.***

Traps and Bells

I collect old animal traps and old bells — sheep bells, cow bells, team bells, and sleigh bells. Would like to hear from people with similar interests. — ***Gene Kenninger, R. D. 1, McVeytown, Pa.***

Another Collector

My "major" collection is dolls, trains, and other toys (pre-1940). I also collect postcards, scrapbooks, and pre-1915 women's magazines. Would like to hear from other collectors and will answer all letters. — ***Mrs. H. J. Gombert, R.D. 2, Killingtonworth, Conn. 06417.***

Button Bracelets

I enjoy all kinds of hand crafts, but one of my favorite hobbies is making button bracelets. I knit or crochet a band to fit snugly around the wrist, using elastic metallic thread. Then I sew the buttons on and keep stretching the band as I go. I fill in the spaces with small buttons, beads, and bits of jewelry. — ***Mrs. Frank E. MacIntire, R.D. 4, Cortland, N.Y. 13045.***

Spring gardening

(Continued from page 64)

start to form shortly after the shrubs blossom, it makes sense to do your shaping and drastic pruning after flowering and before the '69 buds start to form. Hedges such as privet or barberry should be shaped now.

Check for scale insects. Look over your lilacs, fruit trees, poplars, willows, dogwoods, pachysandra, and euonymus for scale infestation. All kinds are similar in appearance and look like small, semi-circular ⅛-inch blisters on the bark. Euonymus scale appears grey-white in large areas. All scales are very debilitating to any plant and will in time kill it. Dormant spray at full strength is good in early April; cut the strength as the season progresses.

Divide Perennials. Mums in particular need division yearly. As the crowns reach a half-inch or so of new growth, lift the entire plant and pull off small divisions the size of a silver dollar from the outside area. Plant these 8 or 10 inches apart and discard the old woody center section. Division each year is a **must,** in our opinion, for good mums. Delphiniums, phlox, iris, and many other perennials are safely divided now in much the same way.

Cankerworms were rampant last year in our Ithaca, New York, area. You may call them inch worms, loopers, measuring worms, or what have you, and there are two varieties — fall and spring cankerworms. Their presence is evidenced by myriad brown moths all over the lawn; these happen to be the males only.

The U.S. Dept. of Agriculture has an excellent leaflet **L 183 Cankerworms,** which is available free by writing **Publications Division, Office of Information, USDA, Washington, D.C. 20250.** You may want to send for it.

In any event, even despite repeated sprays last year, we had one whale of a time keeping them under control. Try a combination spray such as "Sevin," starting in late April and repeating in early May. In addition, band all trees with "Tree-Tanglefoot" to prevent them going up the trunk.

Sodding. Costwise, this "instant lawn" used to be out of the question, but over the years, efficient marketing, keen competition and better methods of handling have dropped the price to where, in our opinion, it is cheaper in the long run than seeding.

The initial cost of seeding (with mulch, fertilizer, seed, and labor) is roughly one-third that of sod. However, by the time you have purchased additional seed, fertilizer, and labor to cover wind and water erosion or poor germination, and then purchased weed killers for the first year, your costs start to climb.

Normally, you have to lightly reseed the following season (fall or spring) and heavily feed for a couple of years. By the time you figure this all out in cost, plus the fact that it usually takes three years to get a good, thick permanent lawn, you'll find sod would have cost not one cent more.

Minimum maintenance. You are seeing more and more use of dry mulches in the form of paving, gravel, marble chips and such, as people realize they look better than a sea of dry dirt or weeds where grass simply won't grow. We've also used tremendous quantities of "Paygro," which is a shredded hardwood bark mulch. It's deep brown in color, makes an almost inpenetrable barrier for grass or weeds, and lends a touch of interest where grass won't grow. We're so enthusiastic about it that we've used several hundred bags on all of our propagating and perennial beds and quantities on our own borders as well. It has held up well for more than three years, and we firmly believe it is the most practical and economical mulch available.

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LET'S DECORATE EGGS

Greet the Easter bunny at your home this year with gaily decorated eggs. All the pretty eggs pictured can be made with crepe and construction papers, doilies, paper lace, little flowers, and bits of ribbon. Plenty of glue will also be needed. Small nut cups may be used as the egg stands, or even formed into petite hats.

Remember – eggs should not be boiled. They should be simmered gently over low heat for about 20 minutes. After cooking, immediately pour off the hot water and fill saucepan with cold water, so the shells will peel off easily when you want to eat them later.

To make the dainty **roses**, cut small petals from crepe paper, being sure to cut them with the grain of the paper. Stretch the petals until the tops curve. Glue petals to eggs, starting at the top and continuing around egg until it resembles a rose. Glue sequins or strips of paper to the top for stamens. The stem can be a nut cup covered with green paper. Leaves may be cut from green construction paper and attached to a wire.

To make the **fancy** or **"gift"** eggs, you will need narrow velvet ribbon in several colors, gold paper lace (available in strips), doilies, and small flower seals or pictures.

Glue gold lace to the egg, either in strips or around the egg and glue ribbon next to the lace. Cut out small medallions from the doilies and glue them on egg or use small flower seals or pictures. After the body is finished, attach a small bow on top to give the egg a "gift" look.

Ducks can be made by cutting "bills" and eyes from construction paper. Put a pert velvet bow on the girl duck's head and a jaunty hat made from a nut cup on the boy duck.

The saucy **little girl** is a pale pink egg. Her braids are strips of braided crepe paper, and crepe paper is cut to form fringed bangs. Keep braids in one long strip and glue them to top of the head. Glue bangs on top of braids. Trim braids and tie with velvet ribbon. Cut a sunbonnet from yellow paper and make the collar from a paper doily.

Last, but certainly not least, is the long awaited **Easter bunny**. He is also a pale pink egg, and his ears are made from pink construction paper. Spread glue over the back of the ears and apply bits of cotton. Put a little crease down center of ears so they will be shaped.

Mr. Bunny's eyes are fringed construction paper, his nose and mouth bits of red paper, and his whiskers thin strips of black paper. Make his collar from construction paper and his bow tie from velvet ribbon.

We hope you and the children have fun making these eggs, and have a Happy Easter!

DO YOU HAVE . . .

A recipe for macaroon cup cakes? If so, will you share it with **Mrs. Joseph Fisher, Dunham, Conn. 06422.**

The recipe for butterscotch pie from the Wayside Inn in Massachusetts? **Miss V. E. Farnsworth, Route 4, Box 90, Auburn, Maine 04210,** would like it.

Information on ways to use brown or light lentils, other than in soup? **Mrs. Raymond Baright, Staatsburg, New York,** sends in this request.



SERVICE BUREAU

For The Northeast Farmer

INSECT TRAP

In our September issue we printed an inquiry from a subscriber about electronic insect killers, with our comment that their usefulness has not been established and that they are likely to attract more bugs than they can kill. We continue to receive complaints from our readers who have not received their orders or their refunds for returned traps. One company, against which we have had numerous complaints, is Electra-Charge Company of New York City and Forest Hills.

According to a National Better Business Bureau Service Bulletin:

"On December 6, 1967, New York Attorney General Louis J. Lefkowitz obtained an injunction in Supreme Court, New York County, signed by Justice John A. Murtagh, directing Barnett Friedenberg, Forest Hills, New York, doing business as Electra-Charge Co., 4 East 46th Street, to make refunds where requested, whether for non-delivery or return of the device, and also to stop making allegedly false claims as to its efficiency.

"The order also directed Friedenberg and Electra-Charge Co. to deposit $10,000 with the Attorney General to be held in escrow pending the final settlement of all claims for delivery and refund.

"Mr. Friedenberg consented to the entry of the injunction without admitting any violation of the law. The Attorney General charged the firm with 'blatant fraud' in making misleading claims to promote the sale of the device."

BAIT BEEF ADS

"I am enclosing an ad for a beef sale showing Steak Bundles at 36¢ lb., Western Beef Hinds at 33¢ lb., Sides at 29¢lb. All meat is cut by appointment, so I called and asked if the meat was still on sale as advertised and they said 'yes.' We made an appointment and drove 200 miles round-trip to the market.

"All the meat they had was some at 69¢ lb. for ½ or ¼ and what they called prime beef at 89¢ lb. – nothing corresponding to their ad. However, it was such a long trip, we did purchase a hind quarter at 89¢.

"As a 'special bonus' they advertised bacon, pork chops, hot dogs, and chickens – 2¢ lb., and in very small print below it said 'Priced below our cost.' I thought this really meant 2¢ per lb. but they explained it was 2¢ under their cost per lb.

"The whole deal was misleading. I don't think they should run an ad like this and then have nothing in the shop as advertised."

This seems to be a typical "bait" ad, whereby the customer is lured by a low price but ends up paying far more. In this particular case, they told our subscriber that this sale meat was still available, but when he arrived it was all gone and all they had was priced much higher.

Often a customer is shown the "sale" meat, which is tough, mostly fat, and sometimes discolored, and is told by the salesman that the higher-priced beef is a better buy.

Apparently some of these bulk meat advertisers deliberately purchase unappetizing beef, which they advertise at a ridiculously low price. They get the customer in, then by showing this unattractive meat discourage him from buying it.

This is not to imply that all bulk meat advertising is misleading. There are many legitimate sales on beef where savings are substantial, but not advertised to be spectacular.

ADDRESSES WANTED

Any relatives of Greenleaf Van Gorder, who was at one time a member of the N.Y. State Senate.

* * *

Any descendants of Calvin and Jerusha Fillmore, who lived in East Aurora, N.Y. and were relatives of President Millard Fillmore.

* * *

Mrs. Leon Ells, whose maiden name was Myra D. Crozier and whose last known address was Binghamton, N.Y.

* * *

Leslie Law, whose mother is trying to locate him.

* * *

B. Franklin Doughty, who was born in Fort Fairfield, Maine, in 1914. His family would like to hear from him.

* * *

Descendants of Reverend Charles Seaman of Buffalo, N.Y. He had three daughters and a son.

* * *

Carol Kyle and daughter, Jane Michel, who lived in Sterling, N.Y. at one time and moved to San Juan, Texas in 1962.

* * *

Albert (Budd) Lloyd Winship, born in 1887, who was last seen in Rockland, Maine, about 1917.

* * *

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

Gentlemen:

I wish to express my appreciation for the wonderful way in which your company handled our claim after the accidental death of my husband.

I surely am thankful that we kept this insurance renewed and I recommend this insurance protection to everyone

Edith L. Merrell.



Mrs. Merrell of Alstead, N.H. received checks totalling $3025.00 from local agent Donald Russell of Keene, N.H. Mr. Merrell had two policies which paid $1950.00 loss of life benefits and $1075.00 medical expense benefits.

The way the accident happened is that Mr. Merrell had replaced several boards in the bottom of his manure spreader and had put it in operation to check clearance. As he walked to the rear of the manure spreader his work jacket became caught in the turning shaft. In less time than it takes to read about it, his left arm was drawn in, badly mangled and almost every stitch of clothes torn from his body. Mr. Merrell was rushed to a local hospital and after examination was taken to a large regional hospital for immediate surgery. Eleven days later he passed away.

OTHER CLAIMS PAID

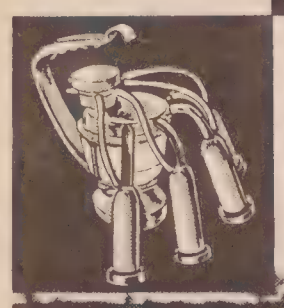
Marvin Goodrich, Medusa, N.Y. $ 292.14
Attacked by bull—broke ribs
Chester Cronk, Fillmore, N.Y. 476.85
Fell from hay mow—injured back
William Hebbard, Binghamton, N.Y. 890.85
Mower fell—injured foot
Stanley Harper, Lisle, N.Y. 1153.46
Attacked by bull—broke arm, ribs
Gerald G. Hilliman, Little Valley, N.Y. 682.66
Filling tractor with gas—severe burns
Ralph Hitchcock, Allegany, N.Y. 702.73
Auto accident—broke ribs
Ralph Kent, Aurora, N.Y. 542.84
Tractor went off culvert—chest inj.
Alan Burgdorf, Port Byron, N.Y. 368.07
Thrown from wagon—broke wrist
Lawrence Chamberlin, N. Clymer, N.Y. 311.46
Hit by electric door—broke arm
Susan M. Nalbone, Dunkirk, N.Y. 440.00
Auto accident—whiplash injury
Julius Lewis, Plum City, N.Y. 198.47
Bumped into door—inj. nose
Jack Eaves, Sherburne, N.Y. 914.15
Fell from hay mow—head injuries
David F. Chauvin, West Chazy, N.Y. 1319.29
Sharpening knives on chopper—cut hand
John Potter, Homer, N.Y. 1051.78
Bricks fell—injured hand
Dorothy Johnson, Delhi, N.Y. 319.63
Pushed by cow—broke rib
Norma Kohn, Lawtons, N.Y. 551.33
Truck accident—inj. knee, ankle
Burton Harvey, Springville, N.Y. 145.70
Skating & fell—broke finger
Burlin Argotsinger, Gloversville, N.Y. 776.65
Fell from rafter—head injury
William F. Schultz, Elba, N.Y. 175.71
Caught in corn sheller—cut hand
Clyde Wicks, E. Bethany, N.Y. 742.50
Auto accident—broke hip
Giffie Handy, Dolgeville, N.Y. 156.20
Slipped on rug—broke arm
John Clark, Woodville, N.Y. 1236.95
Auto accident—inj. knee
Benjamin Beyer, Lowville, N.Y. 264.36
Caught in hay elevator—inj. finger
Clarence Benedict, Turin, N.Y. 777.70
Pushed by cow—inj. knee
Minnie Virkler, Lowville, N.Y. 669.63
Fell—broke wrist
Frank Cicero, Livonia, N.Y. 105.00
Fell in hay mow—inj. ribs
Raymond Ogborn, Chittenango, N.Y. 780.00
Auto accident—broke hip
Gerald Phillips, Amsterdam, N.Y. 622.00
Auto accident—inj. back
Ramona M. Carter, Ransomville, N.Y. 159.00
Caught between car and tree—bruised hip
Francis Carroll, LaFayette, N.Y. $1850.00
Caught in beaters—broke hip, ribs
Lillian Stewart, Holcomb, N.Y. 2147.41
Auto accident—mult. injuries
Earl R. Drake, Medina, N.Y. 150.00
Caught in snow plow—injured hand
Cornelius Mulder, Cherry Valley, N.Y. 542.24
Fell off roof—broke heel
Carrie Skiff, Valley Falls, N.Y. 345.00
Slipped & fell—inj. back, knee
Eugene LaShomb, Brasher Falls, N.Y. 282.84
Kicked by cow—inj. back, ribs
Marie K. Chambers, Heuvelton, N.Y. 226.77
Slipped on ice—broke wrist
John Remers, Jr., Schoharie, N.Y. 900.71
Pipe slipped and fell—inj. back
Maynard Young, Interlaken, N.Y. 975.95
Run over by tractor—broke ankle
Joseph Wachala, Prattsburg, N.Y. 860.58
Caught in saw—injured hand, arm
Richard L. Taft, Addison, N.Y. 515.03
Fell—broke leg
Roger C. Rosenberger, Owego, N.Y. 998.93
Casting fell—inj. knee
Raymond Sill, S. Lansing, N.Y. 407.58
Auto accident—head injury
Charles Herdman, Kingston, N.Y. 348.04
Ladder slipped—inj. face, wrist
Kevin Harren, Greenwich, N.Y. 160.00
Bale of hay fell—broke ankle
Ota Cring, Walworth, N.Y. 568.55
Auto accident—multiple injuries
Howard Triou, Walworth, N.Y. 150.00
Operating skill saw—cut finger
Elmer Hesse, Roscoe, N.Y. 104.28
Fell on icy walk—broke leg
Sherman Warner, Millerton, Pa. 274.00
Fell—broke ankle
George Erickson, Lawrenceville, Pa. 1203.00
Caught in chopper—injured hand
Robert Niedermeyer, Springboro, Pa. 397.25
Caught in mixer—injured hand
George A. May, Erie, Pa. 440.25
Playing basketball—injured back
Fred Pew, Mt. Holly, N.J. 226.00
Bale of hay fell on head—inj. teeth
Helena Marie Smith, Augusta, N.J. 516.37
Ironing board fell—inj. foot
Joseph Shivers, Mullica Hill, N.J. 130.00
Fell from rear of truck—broke arm
H. Merle Foss, Dryden, Maine 800.00
Caught in ensilage cutter—loss of foot
Ernest A. Hendrickson, Fitzwilliam Depot, N.H. 920.97
Fell backwards—broke wrist
Andrew J. Durlack, Great Barrington, Vt. 1082.14
Fell—broke hip
Edgar A. Strong, Eden, Vermont 298.55
Fell on steps—injured knee

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NORTH AMERICAN ACCIDENT INSURANCE COMPANY
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GENERAL OFFICES: CHICAGO, ILLINOIS
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Keep 'em glowing



Keep 'em going



WITH A GENERAC PTO ALTERNATOR

When there's trouble along the power line, hook up a Generac PTO Alternator to your tractor and wait it out in comfort!

Two models are available — a 15,000 watt unit designed for single phase electrical systems on the farm, and a 25,000 watt unit for three phase farm systems with a single phase lead to handle house loads. Each model furnishes ample power to provide light, heat, water and keep all necessary machines and appliances working.

Both units can be trailer.mounted and used as a portable workshop anywhere on the farm.

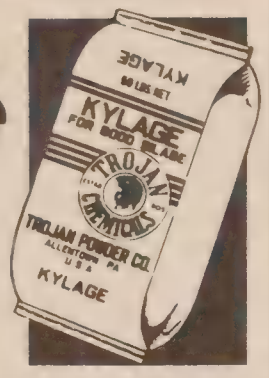
These are true alternators, not generators. Remember that. It's important. Let us tell you more. Write or call 414/968-3101 if you want fast action.

GENERAC CORPORATION
Box 8, Waukesha, Wis. 53186

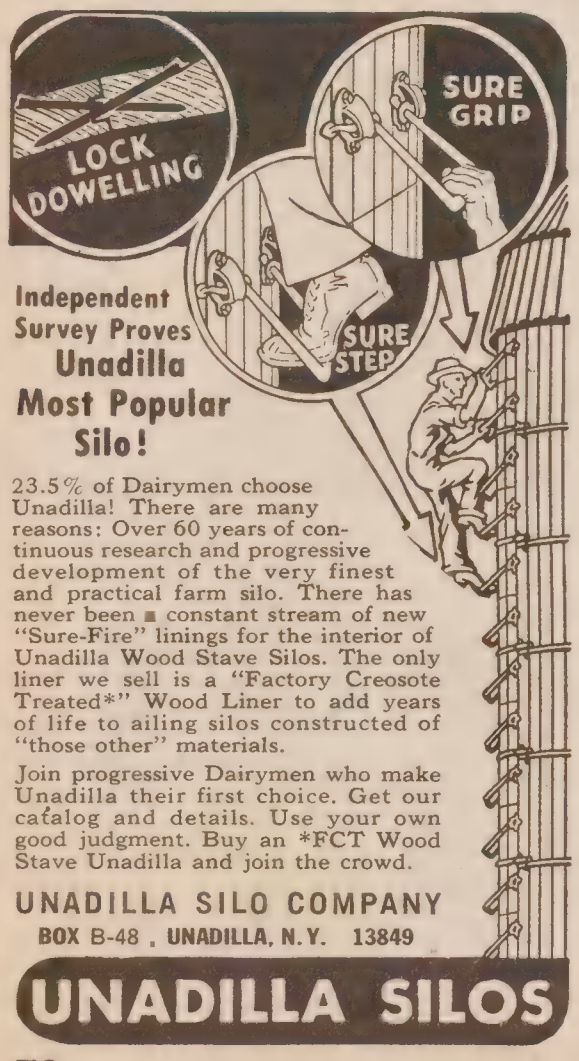
GENERAC

Kylage®

puts silage on a par with green grass



Kylage helps produce better silage from all forage crops—wilted or not. It prevents spoilage—drives out trapped air—stops bad odors. Nothing works better—easier to use. With Kylage, the cost is so small, the results so certain, you can't afford to risk your silage crop. FREE booklet. Ask for Kylage at your farm supply store, or Agway outlet. Trojan Powder Co., Chemical Dept., Div. Commercial Solvents Corp., 17 No. 7th St., Allentown, Pa. 18105.



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23.5% of Dairymen choose Unadilla! There are many reasons: Over 60 years of continuous research and progressive development of the very finest and practical farm silo. There has never been a constant stream of new "Sure-Fire" linings for the interior of Unadilla Wood Stave Silos. The only liner we sell is a "Factory Creosote Treated*" Wood Liner to add years of life to ailing silos constructed of "those other" materials.

Join progressive Dairymen who make Unadilla their first choice. Get our catalog and details. Use your own good judgment. Buy an *FCT Wood Stave Unadilla and join the crowd.

UNADILLA SILO COMPANY
BOX B-48 . UNADILLA, N.Y. 13849

UNADILLA SILOS

Dollar Guide

For The Northeast Farmer

A CLASS I BASE PLAN is proposed for the New York-New Jersey milk marketing area. The plan would assign each producer a base, supposed to reflect his share of the Class I market. A producer would get the Class I price for his quota, and the surplus price for excess production, but he could produce as much milk as he wished.

The law permits the Secretary of Agriculture to put such a plan into the Order, but first dairy farmers must ask for a public hearing, which has been done. Also, during March a number of meetings were held in the milk shed to explain and discuss the proposal.

If the plan comes to a vote, dairymen will vote individually, and disapproval will not bring loss of the entire Order.

CORNELL REPORTS that home-grown oats kept for seed on New York farms are low in germination. Probably similar conditions prevail in all Northeast. A germination test before sowing is good insurance. Seed laboratory at the Geneva Experiment Station makes germination tests for New York farmers at nominal cost.

USDA livestock inventory puts dairy cows at 14,700,000 ... smallest since 1888. Fewer dairymen are producing more milk per cow and per farm.

WRITTEN to aid livestock and poultry producers, the publication "Veterinary Biologics Help Fight Animal Diseases" describes biologics now in common use and procedures for immunizing animals against diseases. Single copies of the publication are available free upon request for publication PA815, "Veterinary Biologics Help Fight Animal Diseases," from the Veterinary Biologics Division, Agricultural Research Service, U. S. Department of Agriculture, Federal Center Building, Hyattsville, Maryland 20782.

PROFESSOR W. C. SKOGLAND, chairman of the University of New Hampshire Animal Sciences Department, says that decreasing the length of day as pullets are growing and giving them a constant day of 14 to 15 hours of light after they start producing gives the best egg production results.

PREVENTING KETOSIS in a herd can be done by judicious feeding and good management practices. Keep the cows full of good-quality roughage, without getting them fat at calving. After calving, bring cows to full feed on concentrates as rapidly as possible. Avoid making abrupt changes in ration. Maintain a proper balance between grain and roughage, including enough protein and minerals in the cow's diet. Ketosis-prone herds should be fed propylene glycol or sodium proprionate at a rate of 4 to 6 ounces per cow. Ketosis-stricken cows should be immediately treated by a veterinarian.

ALFALFA WEEVIL damage is increasing, and spraying to protect the crop will increase. If you grow alfalfa, read Page 20 of this issue.

Another pest that is causing considerable damage is the corn rootworm. Damage is worse where corn follows corn, and more northeastern growers are using chemicals to control it.

U. S. SENATOR Walter Mondale of Minnesota has introduced a bill intended to bring bargaining for prices to all farm commodities. Bill is given little or no chance to pass this year, but shows trend that may come gradually.

NEW CORN HERBICIDE called Primaze has just been cleared by USDA. Produced by Geigy Chemical, it is a combination of atrazine and prometryne ... and was developed specifically to cut herbicide residues for growers who want to follow corn with atrazine-sensitive crops. It's applied during or immediately after planting (corn injury likely if used pre-plant or post-emergence) and one cultivation is recommended.



for...SORE TEATS SCAB TEATS BRUISED TEATS

When teat troubles strike, depend upon the famous 2-WAY ACTION of Dr. Naylor's Medicated Teat Dilators to keep teat open... keep it milking:

1. ACT MECHANICALLY — to keep end of teat open in natural shape to maintain free milk flow.

2. ACT MEDICALLY — to provide built-in medication that is released slowly in teat for prolonged antiseptic action. *Contains no antibiotics.*

NOW SUPER SOFT! ONE SIZE ONLY! Fits and stays in both large and small teats. Easy to use — just keep Dilator in teat between milkings until teat milks free by hand.



At Drug Stores, Farm Stores or postpaid: Large pkg. $1.25. Trial pkg. 60¢

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Dr. Naylor's MEDICATED Teat Dilators

MINI-DOZER
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Unique, easy-to-assemble garden tractor kit. Fun, safe, strong, versatile. Order complete kit or any parts desired. Full line of attachments. See how it works: send for build-it-yourself Plans and Parts Price List — $10.00. Cost deducted from kit purchase price.
Catalog $.50.



Dept. AA-48
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C. F. STRUCK CORP.

SPEND LESS TIME IN THE HAY FIELD

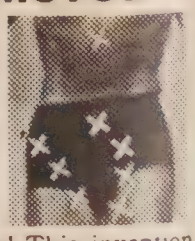


GRIMM'S HAY TEDDER

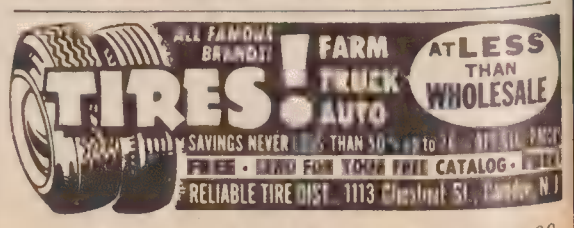
Two models, Land Driven or Power Take Off. Rubber tires. Turns hay in swath or windrows. Non-tangling pick up forks. Makes hay faster. Write for details.

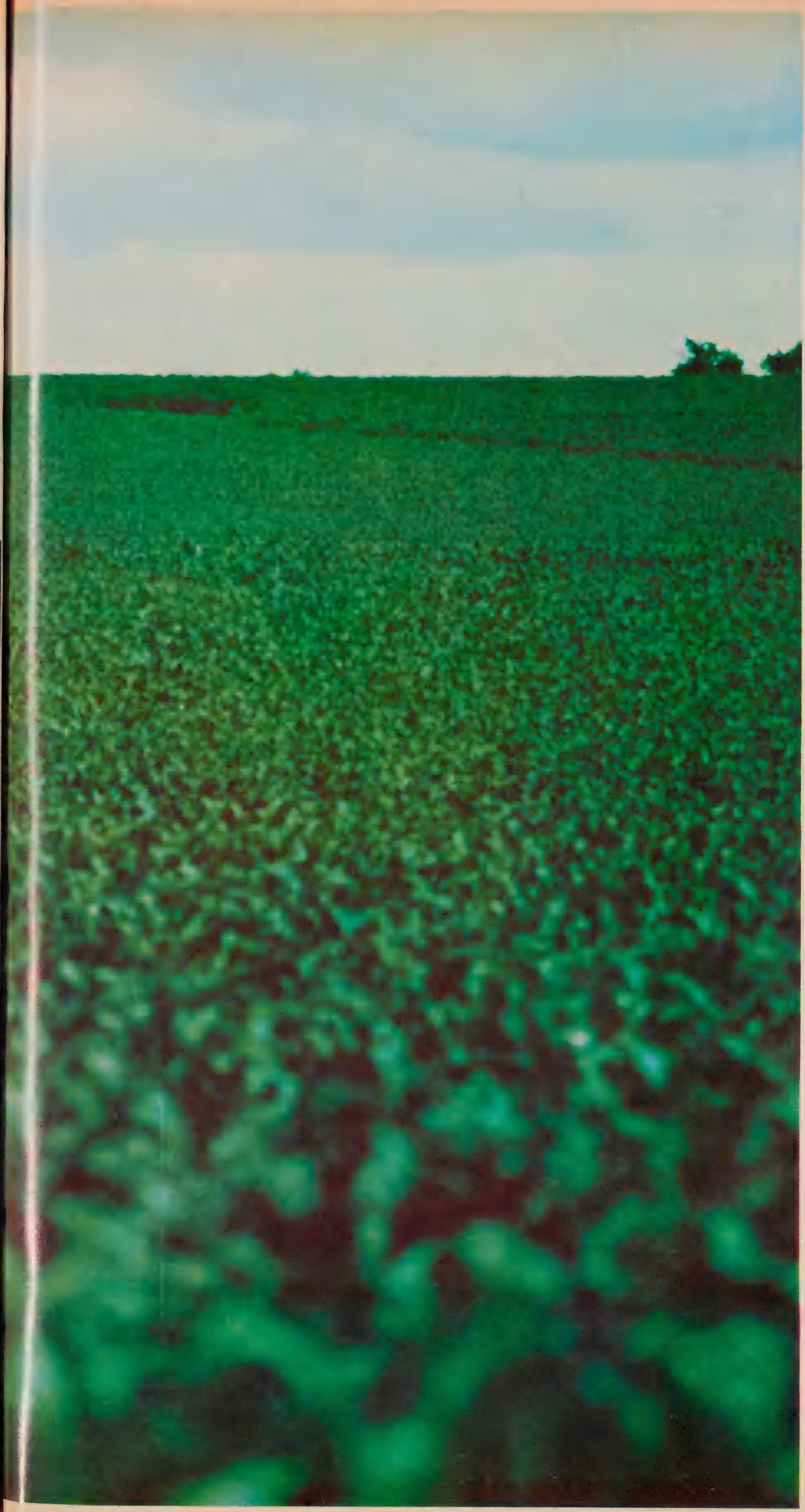
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AGONY Removed
(or trial COSTS YOU NOTHING)



WHEN you slip into a low-cost, contour-designed Brooks Patented Air Cushion Appliance! Your reducible rupture will be held in securely yet gently—or the trial costs you nothing! This invention has made millions of sufferers happy. You can enjoy heavenly comfort night and day at work and play—or the Appliance costs you NOTHING. Isn't this worth a no-risk trial by you? If interested, write for free facts now.
Brooks Co., 301—F State St., Marshall, Mich. 49068





He's haying.

Instead of having to cultivate corn when it's time to get hay in.

One spray of Atrazine herbicide has kept this corn clean since planting. And will continue to keep it clean right through to harvest.

Because one spray of Atrazine assures season-long control of most annual broadleaf and grassy weeds.

So there's no conflict between haying and cultivating corn. Because there are no weeds to cultivate. Just plenty of hay to get in right on time.

If quackgrass is a problem, a split application of Atrazine will do the job. Just apply before plowing and again at planting.

Sounds good? You bet it is. Ask your local supplier now for the Atrazine you need.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Ardsley, New York 10502.

Geigy Atrazine

Suddenly you'll bale extra tons that used to stay on the ground!

And because it's New Holland, your Hayliner® 268 will do it day after day!



How much "hidden hay" has been getting away from you each time you bale? It could be tons a day, depending on your crop and type of windrow.

Up to now, this short, fine hay has been more often passed up than picked up. It simply slipped between the teeth of conventional pickups.

New Holland's optional *Super-Sweep* pickup virtually ends this loss. With 120 teeth—twice as many as on most other pickups—more of the crop gets baled!

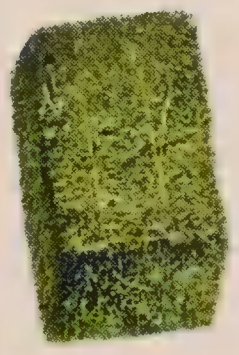
Ideal for short hay. Tests show *Super-Sweep* is of greatest benefit in second- and third-cutting alfalfa, prairie hay and Coastal Bermuda.

But suppose hay loss is no problem for you? Is the Hayliner 268 still your kind of baler? Absolutely!

From hitch to chute, this PTO baler is built for top performance over many seasons.

Built for hard work. To assure more positive tying—especially when the baler is moving at faster-than-average speed—New Holland now gives you five hay dogs inside the bale chamber. The plunger is completely mounted on special sealed roller bearings (a New Holland feature on all 14" x 18" balers) to save power and knife adjustments.

And many New Holland owners report the knotter ties thousands of bales without a miss.



You might also be interested in two other New Holland 14" x 18" balers: the long-tongue Hayliner 269 for wide-track tractors and engine-drive Hayliner 272. For both, *Super-Sweep* is standard on wire-tie models, optional on twine-tie models. And there's a bale thrower for each twine-tie baler.

Low price, too. Your nearby New Holland dealer is waiting with all the facts . . . and the surprisingly low price. Go see him soon. Discover why New Holland has been the country's best-selling baler line for 28 years. Then see if a New Holland can't improve *your* baling *this* year.

New Holland Division of Sperry Rand Corporation.



SPERRY RAND™

NEW HOLLAND

Practical in design • dependable in action

For The Northeast Farmer

MAY 1968

American Agriculturist

and the

RURAL NEW YORKER



Super-Sweep 'finds' extra tons you once lost in the field!

And because it's New Holland, you can trust the husky Hayliner® 275 to handle big baling jobs!



Stop losing hay. Lost hay is for the birds. Literally. Yet conventional pickups often have too few teeth to get short, fine hay. Result: it's left on the ground. For the birds.

That's why New Holland put *Super-Sweep* pickup on the Hayliner 275 baler. To get the hay the others can't. *Super-Sweep* has at least twice as many pickup teeth as most competitive 14" x 18" balers.

When you're finished, there's less hay on the ground . . . more bales in the wagon. Up to three tons more a day, depending on your type of crop and windrow.

Heavy-duty features. But *Super-Sweep* is only one of the reasons you'll like the "275". From hitch to chute, it's built extra-strong. Ask your New Holland dealer to show you the heavy, reinforced steel bale chamber . . . a rugged roller chain and slip clutch on pickup drive . . . heavy-duty knotter or twister with hardened wear surfaces . . . sealed bearings on pickup tooth bars and feeder carriage for longer wear in dusty conditions.

All this goes to make it the can-do baler for the custom operator and big-acreage hay grower. Let your New Holland dealer show you how it can do the job for *you*.

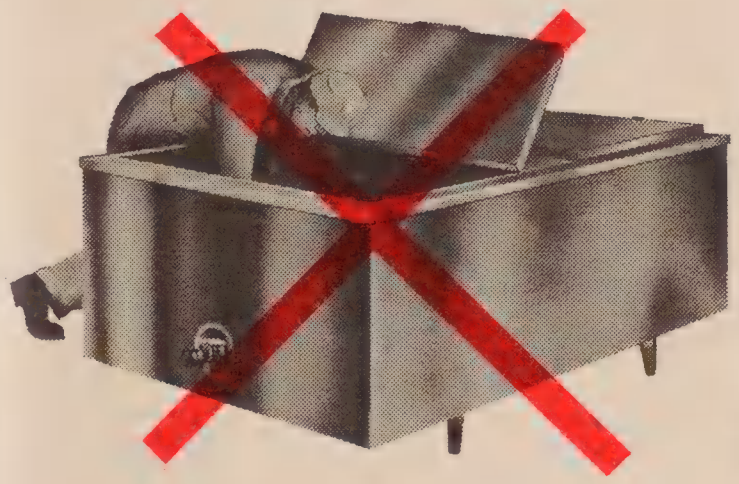
New Holland Division of Sperry Rand Corporation.

SPERRY RAND™

NEW HOLLAND

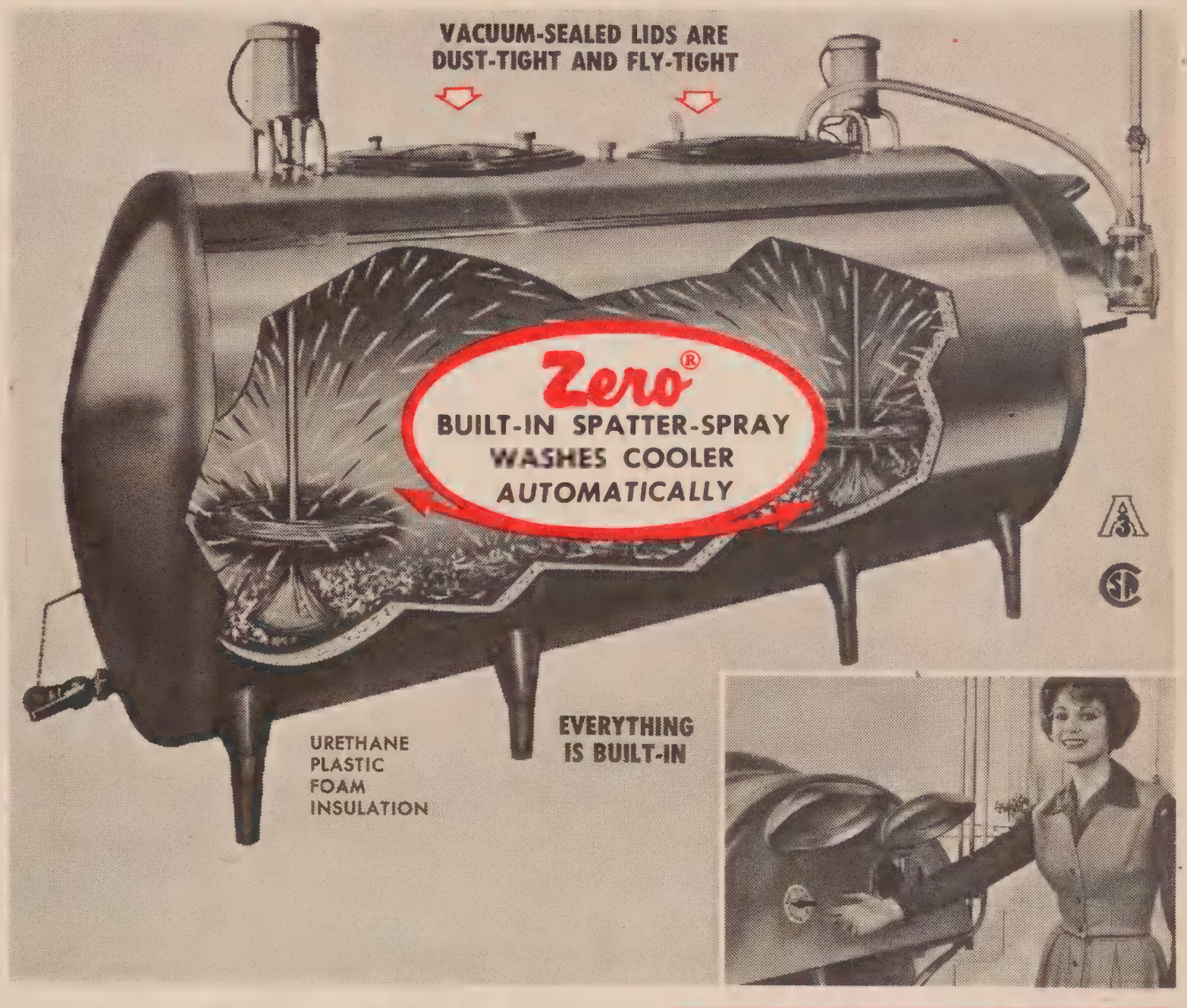
Practical in design • dependable in action

HERE'S WHY DAIRYMEN ARE TRADING IN THEIR OLD-FASHIONED BULK MILK TANKS



...ON A NEW, MODERN, COMPLETELY-AUTOMATED

VACUUM Zero®



Cooling Under *Vacuum* Produces Finer-Flavored, Higher-Quality Milk with the Natural, Clean, Pleasant, Slightly-Sweet Taste That People Like . . . for Which There is No Substitute

To keep costs down and for convenience — with modern-day handling — milk is stored on the farm, in the milk plant and in the customer's refrigerator for longer periods of time than formerly. And while new, better methods of cooling and sanitation have improved the keeping qualities of milk — one major problem remains. *This major problem is RANCIDITY!*

Many factors contribute in causing milk rancidity. But the *chief causes* of rancidity are the *injection of air* into the milk at the claw — and the *mechanical pumping* of milk — *before it is properly cooled.* The air injection and pumping actions generate a foaming of the milk in the pipeline. This allows an *enzyme* in the milk, called *lipase,* to split the butterfat globules and produce what are called *free fatty acids, which have a rancid flavor.*

Tests Show Conclusively that Milk Cooled Under Vacuum Has a Lower Fatty Acid Degree Valuation. In addition, the *vacuum bulk tank* does away with the milk pump and releaser. Therefore, the vacuum bulk tank is the only system devised to date that will maintain the flavor and quality of milk as it comes from the cow. It is possible for a vacuum system to even improve milk flavor and quality by removing animal heat and barn odors quickly.

The ZERO COMPLETELY-AUTOMATED VACUUM BULK MILK COOLER is designed to improve your complete milking system. *It provides a reserve vacuum* that helps stabilize the vacuum to the cow.

In the Future — You Will Use a Milking System that Does Not Inject Air and Has No Vacuum Fluctuation — which will be the final step in producing the finest-flavored and highest-quality milk possible. When we all do the best job of handling milk that is humanly possible — confidence and faith in the future of dairying will be assured.

See Your ZERO Dealer! Mail Coupon today for full information about the ZERO COMPLETELY-AUTOMATED VACUUM BULK MILK COOLER, including specifications and capacity sizes — location of your nearest ZERO installation — and name of your nearest ZERO Dealer!

ZERO MANUFACTURING CO.

691-E Duncan Ave. Washington, Mo. 63090

Washes, Rinses and Sanitizes Itself Automatically —With the Flip of a Switch!

ZERO is the *only* farm bulk milk tank with a *completely-automated, entirely-built-in, self-cleaning and sanitizing system.* Photo above shows the ZERO's patented, built-in Spatter-Spray Automatic Washer in action. Note how the twin impellers hurl a double cross-fire of water — with "tornado" force — against the tank's entire stainless steel interior.

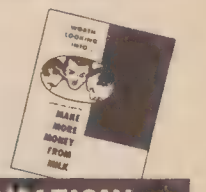
Round-shaped—there are no hard-to-clean corners. Patented, swooped-down openings make all milk contact surfaces visible and easily accessible. Lids are fly-tight and dust-tight. Brushing is kept to a minimum. *Official records show bacteria averages greatly reduced.*

ALSO GOOD USED EQUIPMENT

— which has been traded in, now available at your ZERO Dealers. Mail Coupon for details. No obligation.

FREE! NEW 14-PAGE ILLUSTRATED BOOK

— describes in detail everything you should know before you invest in any milk-handling equipment. Explains how modern ZERO AUTOMATION saves time, labor and increases milk profits. Gives full information about the ZERO COMPLETELY-AUTOMATED VACUUM BULK MILK COOLER —including dimensions of all different capacity ZERO Tanks. Mail Coupon for FREE Book today!



Your ZERO Dealer Will Give You a Liberal Trade-in Allowance on Your Old-Fashioned Bulk Tank!

MAIL COUPON FOR FREE BOOK AND FULL INFORMATION!

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Please send me FREE Book described above — location of my nearest ZERO installation — and name of my nearest ZERO Dealer. I am interested in:

- ☐ New ZERO Completely-Automated Vacuum Bulk Milk Cooler
- ☐ New ZERO CONCORD Twin-Vacuum Complete Pipeline Milking System
- ☐ Good Used Equipment

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MAKE OF PRESENT TANK ITS AGE

SIZE OF MILK HOUSE SIZE HERD

MAKE OF PRESENT MILKING MACHINE AGE

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Zero® COMPLETELY-AUTOMATED VACUUM BULK MILK COOLER

—WITH BUILT-IN SPATTER-SPRAY AUTOMATIC WASHER

Vacuum — Nature's Own Way.

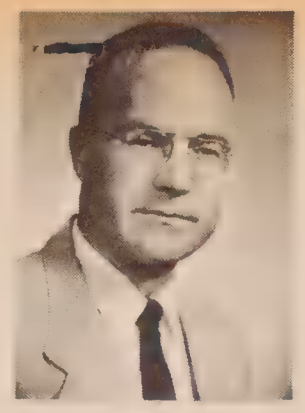


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55

EDITORIALS

by GORDON CONKLIN



TWO SHEETS OF PAPER

To list two people's faults he took
Two sheets of snowy paper;
His neighbor's sheet was filled, both sides,
His own showed not one caper!

Flo Montgomery Tidgwell

BREACH OF PROMISE

The politician told a crowd, "If I am elected, I promise without fail that every man in this audience will have a good job!"

Pausing to give this dramatic effect, the office-seeker was taken aback when a scraggly, pungent hippie arose and growled, "You'd better be careful who you're a-threatenin!"

Amidst an abundance of material possessions unmatched at any time in history, or in any other nation on earth, we Americans are in troubled times right here at home. We have promised too much . . . and we have been promised too much. Our expectations far outrun the realities.

Our President promised that we would not fight a war on mainland Asia . . . then proceeded to do so. He then promised quick success with guns, along with plenty of butter . . . but the results have indicated neither enough guns **nor** butter. He has promised Negroes instant attainment of their desires . . . ignoring the warnings of those who spoke of long-range gains.

Government leaders figuratively promised the moon to those involved in the war on poverty . . . and literally promised the moon to the entire nation via the space program. Others promised to "feed the world"; still others promised farmers a "New Era" . . . while parity levels sank to the lowest levels since the 30's.

Whatever became of those honest men who merely promised they'd do the very best they could?

POSITIVE LETTER

For a number of years, dairy statistics have told the same story . . . strong demand for fluid milk in New England, and slumping per capita consumption in the New York-New Jersey market. In recent months, there have been substantial increases in total Class I consumption in New England as compared to a year ago . . . even as comparable figures in Order 2 slumped. However, the Order 2 figures are being affected by standardization, and the transfer of high Class I-utilization plants to the Delaware Valley Order . . . so they're not directly comparable at the moment to New England indicators.

USDA figures on per capita consumption of fluid milk, comparing 1966 with 1965, show **increases** in Connecticut and Massachusetts-Rhode Island . . . compared to a **drop** in Order 2 over the same period. Any way you cut it, New England appears to have done a better job of selling milk than is true in New York-New Jersey.

And well they might . . . more than 90 percent of Connecticut dairymen support milk promotion to the tune of 4 cents per cwt. In the Massachusetts-Rhode Island-New Hampshire Order area, almost 85 percent of the dairymen give their support (through a positive letter program). Maine and Vermont have state tax programs on milk marketed within those states . . . with funds collected going for milk promotion. Milk sold outside those states is promoted by most Vermont and Maine dairymen, through either a positive letter program, or by dairy cooperative action.

Unless dairymen want to see the emergence of some new beef breeds (Holstein, Brown Swiss, etc.) in the New York-New Jersey area, they'll have to support more adequate programs of milk promotion, as well as research and product development.

The Order 2 dairymen who sent in their "negative letter" refusing promotion deductions are saving pennies and losing dollars . . . as well as succumbing to that age-old temptation to accept the benefits without sharing the responsibilities. Dairymen who decided to allow deductions should give the ADA-Dairy Council people time to gear up for the job before jumping to the trigger-happy conclusion that "it didn't do any good."

It's heartening to see the majority of Order 2 dairymen finally decide to really give larger-scale milk promotion a try. And it's equally heartening to note that 18 northeastern dairy cooperatives have formalized the New York-New England Dairy Cooperative Coordinating Committee in order to speak with a unified voice for 25,000 dairymen.

It's an ill wind that blows no good at all . . . imitation milk, creating an urgency for long-needed change, is no exception!

MORE STATELY MANSIONS

A little boy comes bounding into the house, his face aglow with the desire to share something tremendous with someone he loves.

"Just look at the keen birdhouse I've built," he exults to his work-worn father relaxing with the paper at the kitchen table.

Turning from the headlines that scream of the evils of the world, the jaded father jeers, "No self-respecting bird would ever live in a crummy shack like that! Whatever gave you the idea you're a carpenter . . . I hope you didn't wreck any of my tools!"

Fighting back his tears, the boy shuffles sadly out the door . . . a little part of his unfolding self forever shriveled. The birdhouse is a pretty sloppy job compared to some, but he had done his level best.

So ends Act I, Scene I, of a drama repeated with endless variations all too often. Sometimes it's children . . . perhaps more often adults . . . that are slapped down by those of us who are just plain ornery, or mistakenly believe that the way to look comparatively big is to cut everyone else down.

Across the years I've seen my share of heartache, tragedy, and violent death. Somehow, though, the saddest sights I see involve the failure by most of us to encourage our fellow man along the pathways of our days.

We live in a competitive world, we are told, and the road to success is paved by doing unto others before they do it unto us. Make everyone fight for everything they get, the self-styled "realists" go on, and never blow anyone else's horn for fear your own will go untooted. For the kind of short-term success that vanishes along with us when we no longer cast a shadow in the sun, I suppose that advice has some merit.

But success can be measured in joy as well as accumulations . . . in terms of harmony with the universe of which each of us is a part so infinitesimally small. For this, there is nothing that counts more than encouraging the folks who walk beside us for those few brief years across the hills and valleys on the landscape of life.

Perhaps some day when our work is done, and the shadows fall, we may hear a Voice saying, "You **did** make a sorry birdhouse out of your life, but I know it was your level best. Dry the tears from your eyes, and begin exploring with Me a new dimension that has no end . . . "

BOUQUET

Amos Kirby, American Agriculturist's New Jersey Editor, was honored recently for his authorship of a column in the Woodbury Daily Times. All of us at A.A. extend our congratulations!

"I'LL SUE"

The injured man lying on the country road snarled at a passerby trying to help, "Never mind the doctor . . . get me a good lawyer!" Suing someone for all sorts of injuries has become an increasingly-popular . . . and profitable . . . indoor and outdoor sport.

In the process, farmers have understandably become more upset by the fact that ever-larger numbers of people want to use their land for the joys of open space. Some of the nonfarmers ask permission . . . and, if the farmer is agreeable, he can sadly discover that the courts may construe his "yes" to be an **invitation** to the open-space devotee. Inviting someone on your property creates a greater legal responsibility on the part of the landowner than if someone traipses across it uninvited.

It's heartening to see that the New York Legislature has passed, and Governor Rockefeller signed, a law that adds snowmobiling to the list of other activities (hunting, fishing, trapping, and dog training) concerning which New York landowners' liability is limited. Farmers still must warn prospective land users (who ask permission) about unusual hazards of which the farmers is aware, but he can worry less than before about a "grateful" snowmobiler suing him after being filtered through a barbed wire fence in a moment of carelessness.

In all northeastern states, the pressure of population upon open space is intensifying. One key to availability of open space to nonfarmers is relief from liability laws. Farmers tend to forbid the use of their land by anyone . . . and thereby create the maximum legal protection available concerning personal liability.

It is in the interests of farmers **and** nonfarmers alike to minimize the liability of landowners toward people seeking to temporarily share the joys of open space. Farmers own most of the **acres;** nonfarmers hold most of the **votes.** Here's a clear-cut opportunity for cooperation on legislation that offers long-run benefits for both.

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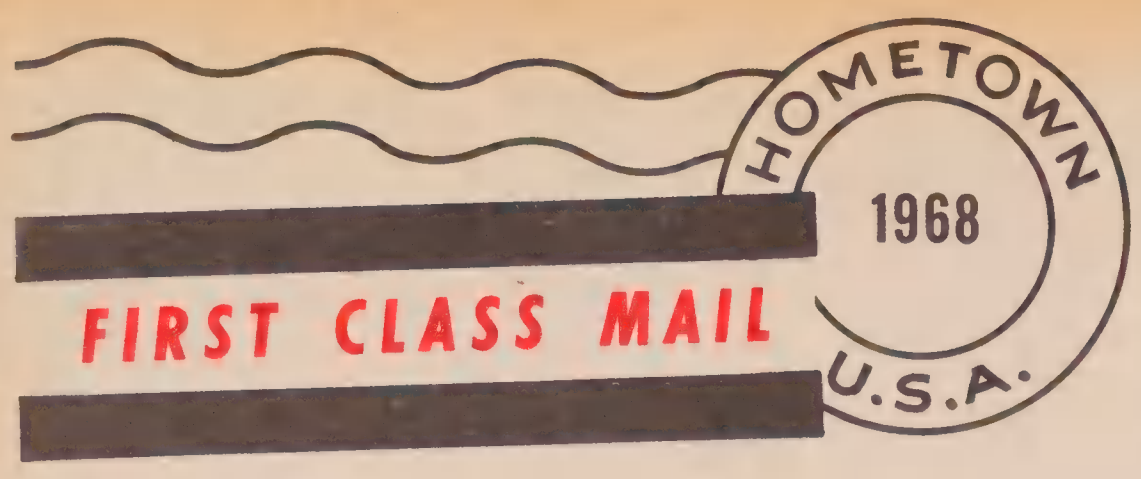
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OFF HIS CHEST

The one big "gripe" I have with all farm editors is your service of propagandizing the farmers for the benefit of those living off the farmers and contributing nothing to the economy. It is impossible to pick up a farm paper without reading what a great job the co-ops are doing (for us, the farmer, of course). In this New York area if you belong to a co-op you have the privilege of taking ten cents a hundred less for your milk than if you sold it by your lonesome. If you buy your feed from a co-op you pay five to six dollars a ton more than if you bought it from a true free enterprise outfit. Services? To be sure . . . all the insurance you want . . . at your expense of course.

In every farm paper I read, co-ops propose that now the dairymen pay for advertising. If they were really doing anything and really bargaining for our milk, the co-ops would be bargaining this advertising price from those who consume the milk. As for me, I would rather have this $300 a year which it would cost me to advertise, and buy some good corn whiskey than pay it in to some co-op. This way I get to drink it (since I'm the one who earned it) instead of some co-op official who tells me to get more efficient. I'm the one who works sixteen hours a day to produce over 900,000 pounds of milk when a manager of a co-op store can take a Florida vacation for two weeks. This same fellow gets Saturdays, Sundays, and holidays off.

The dairy business has made me an animal. I have milked cows for 32 out of my 40 years. Every time another dairyman is forced to sell out, I have the satisfaction of knowing I survived him. I know you won't print this because the true views of farmers are never told. You only print what you want the people to hear. *—Raymond Lane, Walhalla Farms, Cherry Valley, New York*

FOR CO-OPS

Back in the middle 'thirties, I was a charter member and treasurer of one of the pioneer artificial breeding cooperatives in the United States. When I observe today the magnitude of artificial breeding services, and note the enormous contribution made to dairy farming by cooperatives in this area, I get a feeling of satisfaction knowing that I had a part, however small, in its establishment.

Established before artificial breeding, but since its appearance working side by side with it, is another co-op . . . the DHIC. It is impossible to put a monetary value on this example of farmers working together through the Extension Service. It affords the dairyman a continuing record of his production units, a service performed by no other agency.

By reading this so far, you correctly suspect that I am a "co-op booster." Exactly so, and I think that anyone who will stop and take stock of the present status of cooperatives will join me. Actually, I think that now most farmers take co-ops for granted, accepting their services on a day-to-day basis without pausing to reflect on the beneficial impact they have on his business.

Let's take a look at another type of co-op, the "purchasing" variety, an example of which is Agway. You, as well as I, have heard farmers say, "I can buy 'such and so' just as good as Agway's and for less money, at another store." This can be true, precisely because Agway or any other such co-op operates in this area of business and sets the pace as far as price and quality are concerned.

To substantiate this, one only need ask an "old-timer" what the feed grain business was like at the time of the founding of GLF. The way I hear it, it was a swindlers' market! GLF's conspicuous contribution was to see the farmer gain an honest buck's worth of dairy ration for every dollar he spent for it.

Despite some of their alleged shortcomings, an objective look at the "milk co-ops" reveals that they have, over the years, filled the need for organizations through which the dairyman might project his interests in the milk market. The many achievements of the "milk co-ops" are easily forgotten or taken for granted; it is their shortcomings that some people seem only to notice.

As of this writing, dairymen now have the opportunity, on fundamentally a cooperative basis, to support the program of the ADA through acceptance of the "positive letter." To me, contribution to the ADA effort is not an expense, but rather an investment in the future of my business. I have no doubt that with enlarged resources, the ADA program can and will produce improved results.

Again, cooperatives serve farmers not only by the services they perform, but also by the influence they exert on the area in which they operate. If I were to awake some morning and find that through some unhappy circumstance all cooperatives were swept away, that would be the day I would nail a "for sale" sign on the barn door! — *Kimber M. Spargo, Springfield Center, N.Y.*

ROCK TAVERN

In 1881, the New York Ontario & Western Railway built a new branch from Middletown to Cornwall. They passed through Rock Tavern and named the staton Rock Tavern Station. In 1884 the post office was established as Rocklet Post Office. It was said some influential ladies of the day objected to the P.O. being named after a tavern! In 1915, the P.O. name was changed back to Rock Tavern.

I am interested in pictures of the first creamery and other buildings prior to 1909. After 1909, a new and larger creamery was built, which burned in 1924. I would like pictures of this very much.

I am also interested in pictures of the classes at Rock Tavern School, also known as Clinton School. Would like any memories any reader can give if he or she lived in Rock Tavern at any time.

Would be interested in pictures of first feed store run by Charles Rose and second run by Moffat & Gale. In short, any pictures or any personal memories of Rock Tavern area prior to 40's would be of great help. *—Frederick A. Lewis, Rock Tavern, New York 12575*

FRAMED

I read your article concerning the sugar beet endeavor in New York State, and I would like to go on record that I disagree with you and, as someone said, "That's what makes horse races." Only time will tell who is right. In the meantime, I have put your editorial on the wall of my office as a reminder. *— F. H. Vahlsing, Jr., New York Sugar Industries, Inc., Robbinsville, N.J.*

BIG WOODCHUCK

Ken Nemeth of 271 Pasadena Avenue, Elyria, Ohio, would like to know what the record is for a woodchuck bagged with a rifle. Using a Savage rifle chambered in 222 caliber, he shot a chuck last summer that weighed in at 25 pounds. He wants to know if anyone can beat it.

The chuck, a female, measured 36 inches from nose to tailbone, stood 26 inches high and had a 26-inch girth. Anyone knowing of a larger woodchuck shot with a rifle is invited to write Savage Arms, Dept. CHUCK, Westfield, Mass. 01085, with the particulars.

A PLOWMAN'S HONOR

What are farmers especially interested in this time of year? Certainly not politics, nor the questions of war and peace. National and international controversies have weighed down our spirits long enough. Those things seem too remote . . . out-of-focus on a spring day. The mud in our driveway would seem to be of more immediate concern. There's a lot of fencing to be done, and a grain drill needs repair.

In peace and in war cattle must graze, crops must be planted, life must go on. The whims of a conqueror's dream still must wait on the strength of a man in overalls, with a sickle in his hand.

Unchanging

So agriculture is the first and last stability of man's earthly existence. All communities, all nations are held in the final balance of what there is to eat. The frost of a poor and abandoned soil is the one killer who cannot be appeased by compromise.

Let men feel the futility of their philosophies, their religions, their institutions. These are but as flowing water which takes a thousand forms . . . rising and

(Continued on next page)

The Song of the Lazy Farmer



Today I started my spring work, no longer could I dodge and shirk; my conscience wouldn't let me stay inside another single day. So, somewhat sadly to be sure, I started an inspection tour to size up things that must be done before I stop again for fun. Imagine my surprise to see that lots of things were new to me; apparently, all winter long, Mirandy kept on going strong, and while I rested in my chair she launched new projects ev'rywhere. So much has changed since 'way last fall, I hardly know the place at all.

Why, half the plowing's done, I'd guess; machin'ry I left in a mess is all fixed up and set to go; someone's been fixing fence, I know; the brooder's full of chicks half-grown; it looks like all the oats are sown. Though I ain't made the livestock plan to tell my wife and hired man, I see they've bought a dozen sows and have the barn filled up with cows. A cropping plan's been figured out, I can't tell what it's all about; there's even one field turning green with some crop I ain't never seen. But, shucks, it's all okay with me, I'll head back to my chair, by gee.

lling from century to century. till humanity lives on as long as here are men plowing in the sun, rimming the fruit, and tending he herds.

In such a faith I will plot my arden and my field. I'll clean he seed, and build a barn, and uy a new shovel. There is no utility in this . . . no doubt of a vorthy cause. Whatever else man loes this must be done first. This s the foundation and the corner-tone. This is the anchor which eeps the ship always in safe vaters no matter who is at the elm.

eroes?

We men of the soil scarcely ook like heroes. We are not eroes. We do not pose as being etter than other men; but we ave our hands in something that s satisfying and real. We are part f a mission that the world can-ot do without.

There is no shining medal to e won in a hayfield. No one will build a monument to our little chores. Those things we hardly need. The medals and monuments are part of our living . . . something we feel inside of us when we hitch to a plow and start down the long furrow.

Over and over again with each passing year we win from nature and the brown dirt that first requirement of man's existence. There is no honor in it except to hold membership in an irreplaceable cause. Our coffins will not be of bronze. The word at our grave will be one to simply say, "This man was surely needed."

The soil of April sticks to my boots. I look at the weather, and plan for the business of the day. Some posts need to be sharpened. A pen has to be cleaned. The rollers on the barn door need greasing. In the evening I hear peepers in the lowland. The sunset looks like good weather. Two or three fair days and we can start harrowing for grain.

There is no shallow excitement here. No one cheers. I hear only the sound of the April breeze, a singing bird, a housewife calling her husband to dinner. Cheers die out too soon, but the meadow stays and the green pastures always come again.

This is the world of a farmer . . . this cleanswept hillside, this open sky, this breath of buds and plants and turning soil. We have taken our stand where there is hard work to do; but we also stand in the grace of our conscience and our peace of mind. We know our place, even as all creatures of the earth follow some infallible instinct of their being. To its last line the story reads, "A life well spent, a work well done." —*Edwin R. Rice, Randolph, New York*

WE BOW OUR HEADS

'Tis hard to die at twenty-three
When dreams and hope and love are calling.
We bow our heads.
When tall boys go away to war
Many return, but some remain.
In homage for their sacrifice
We bow our heads.

James C. Otis, King Ferry, N.Y.

AND RESOURCES MAP

A Land Resources Map which eatures 153 units or soil groups, ach representing a different level of soil productivity, is available rom the Agricultural Experiment Station at the Pennsylvania tate University.

Each soil unit is evaluated by 6 characteristics, of which the most important are soil depth, oil drainage environment, geologic source of soil material, available moisture, plant rooting ones, and dominant crop production.

Copies of the map are available or $10.00 by writing to Maps, Box 6000, University Park, Pa. 6802.

NAMED CHAIRMAN

Bernard F. Stanton, professor of farm management at Cornell University, has been appointed chairman of the department of agricultural economics at the New York State College of Agriculture. He succeeds Professor Glenn W. Hedlund, who served as chairman of the department for more than 13 years, and who will now devote his time primarily to teaching and research activities.



Professor Stanton

Professor Stanton joined the Cornell faculty in 1953 as assistant professor of agricultural economics, and has been active in teaching, research, and extension in farm management. During his sabbatic leave in 1960 he served as an agricultural economist in the Economic Research Service, USDA, and in 1966-67 was with the University of Helsinki, Finland, as a Fulbright research scholar.

American Agriculturist, May, 1968



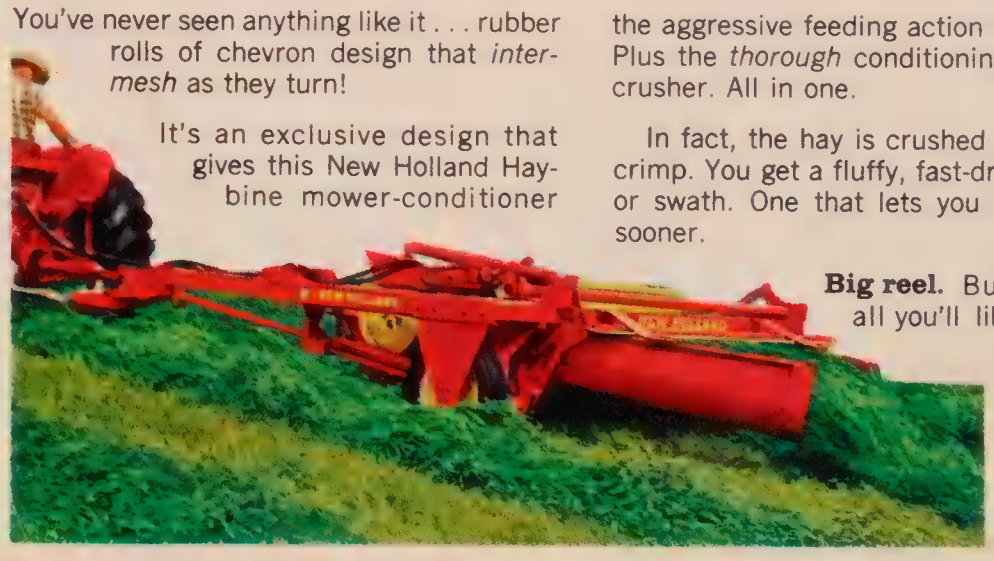
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SOMETHING DIFFERENT

by Nenetzin R. White

IT SEEMS THAT everyone wants something different in their home landscaping, and I'm all for it. However, don't let your unusual ideas become too garish, and don't try to grow plants in situations that are not compatible (wet feet, wrong exposure, etc.). Keep away from semi-hardy material unless you are an expert gardener and wish to "fuss" with plants, and do call in expert help whenever you need it.

I am constantly on the lookout for new ideas and for good plants that are adaptable to our Northeastern locale. Here are some ideas I hope you can use, or perhaps they will inspire you to go ahead on your own.

Tree peonies are woody plants with the same beautiful double, semi-double, and single (my favorite) blossoms as everyday perennial peonies, but these will grow to be large, gorgeous shrubs, as tall as 6 feet and as broad or broader than they are high. They are rather slow growing and are heavy feeders. Properly placed, these interesting and unique accent plants, with hundreds of striking blossoms, become a real conversation piece. You will find that they are a bit more expensive than the herbaceous peony types.

Azaleas for our coastal areas need no description from me. In our colder climates, there are several that do well and at least one that seems to really like our area. This is the Molle or Chinese (mollis) Azalea and its hybrids. Their eventual height under ideal conditions is about 6 feet, but usually they remain about 3 to 4 feet.

They are deciduous (drop their leaves in winter), can be planted in almost any exposure, and will delight you with their large plentiful blossoms. The color range increases every year with new hybrid introductions, and now added to the basic yellow, apricot, and flame are white, red, and bicolors.

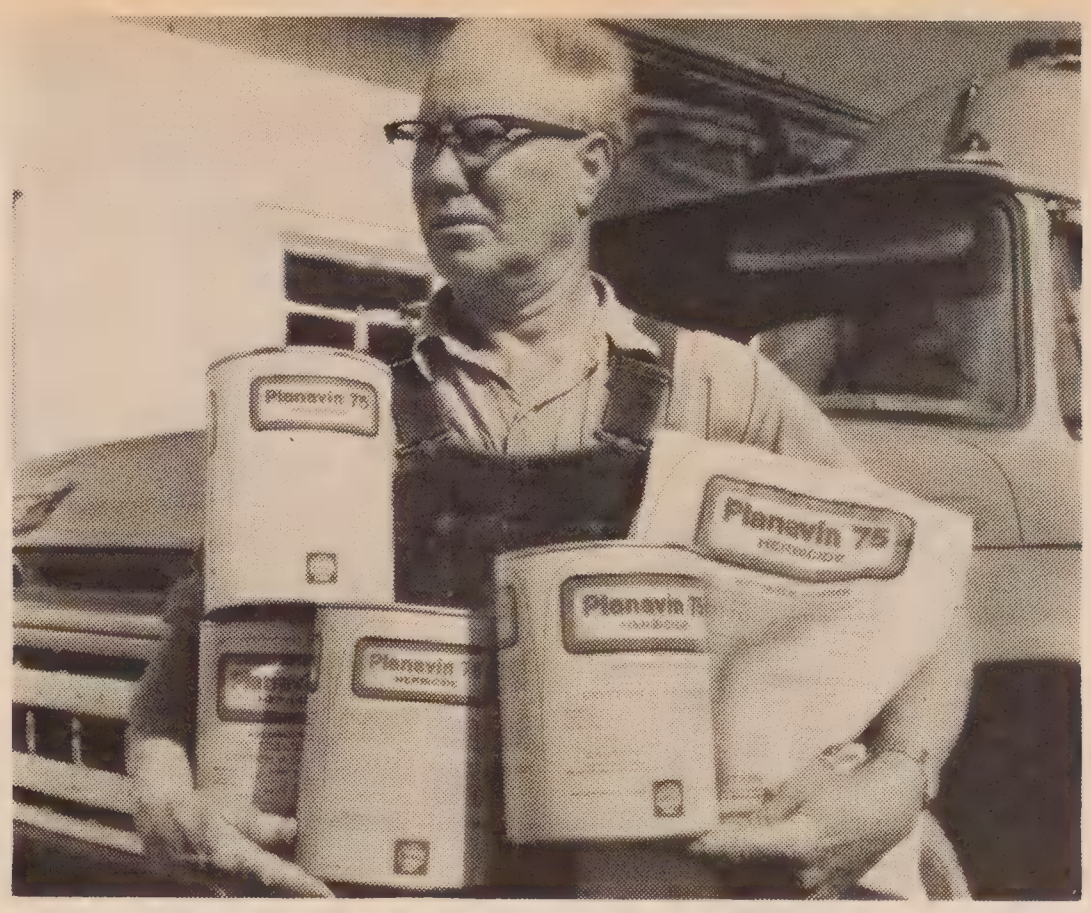
As with all azaleas, the stems are rather small and dainty, so you should avoid exposed situations where they can be damaged by snow drifts or strong winds. They need a summer mulch (one like shredded hardwood bark that can remain on all year), and a little acid food will help. Azaleas usually look best when planted in groups, large or small according to your pocketbook. Some friends of ours, however, have a single plant between their terrace and house, and it is really exquisite, thus a contradiction to the group or clump rule.

Do you ever wish you could put something different in your window boxes and in the containers around your home? Well, you can — **ornamental cabbage and kale** are just delightful! They are different shades of green, as well as white, pink and red, and don't laugh until you've seen them! The cabbage doesn't form a firm head, but is rather open and fringed or ruffled. The kale is much the same, but a little taller.

I saw these in a window box in Woodstock, Vermont, in late November, and they were still lovely. In fact, they take on deeper colors in late fall, and a few frosts seem to help the coloration. The plants are not killed until frozen solid, so your boxes can be all set until the Christmas Season. And at any time if you don't like these plants, you can always eat them!

I have always thought that agapanthus **(Blue Lily-of-the-Nile)** was one of the world's most beautiful plants. In our Ithaca, New York, area, it can be used in tubs for the summer and brought in before frost. These are big tub or container plants with broad, long, slightly drooping leaves and magnificent blue lily-like flowers. They have a long blossoming season. Your local florist or nurseryman should be able to get them for you, or sev-

(Continued on page 12)



Soybean growers bought every pound of Planavin® Herbicide they could get their hands on last season.

Planavin® 75 Herbicide is more than just another good preemergence herbicide for soybeans. That explains why it sold out so fast its first year on the market—against established competitive products.

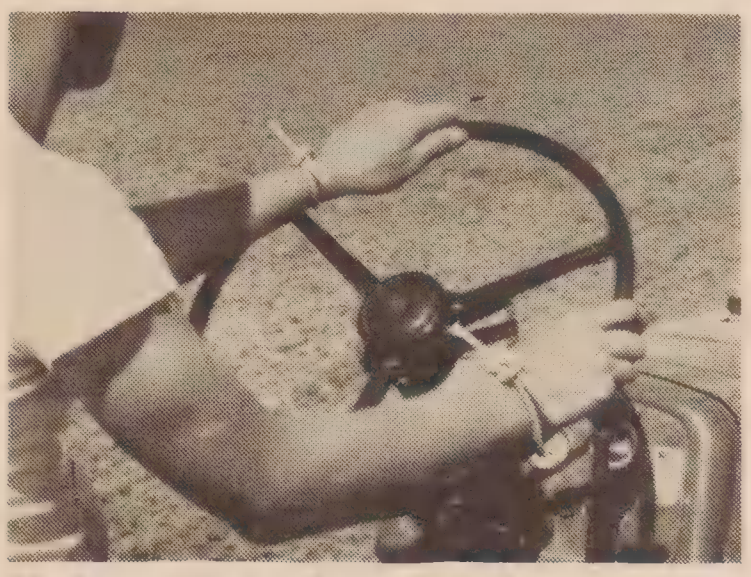
Along with first-rate weed and grass control, Planavin provides greater application flexibility than any other preemergence herbicide.

Soybean growers *really* found out how good it was when they put



Soybeans sprout and grow, but weed and grass problems sprout and die, when you apply Planavin before you plant.

Planavin to work last season. It held the fort against most annual grasses and many broadleaf weeds, even in the face of some of the worst weather in years. It worked, wet weather or dry, right on through the season when weeds can strangle soybeans and limit yield.

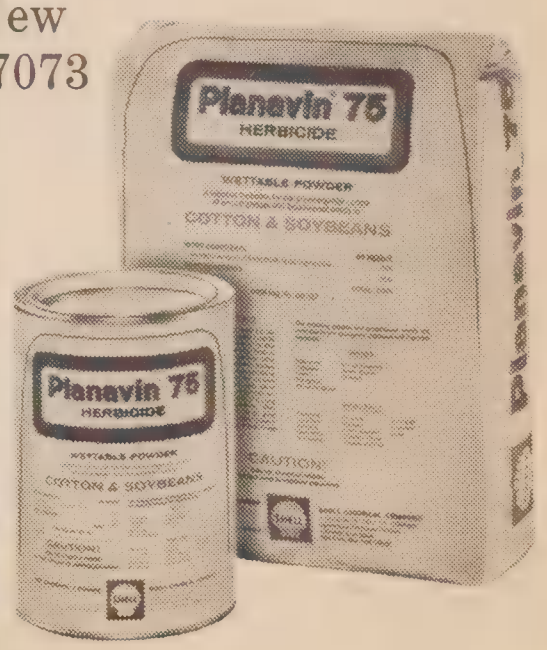


You're not tied to immediate incorporation when you use Planavin. You have a few hours between spray and incorporation.

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SHELL





CLASS I

ANALYSIS IN DEPTH

SOME PROBLEMS

by Elmer Towne*

THE New York Class I Base Plan, drafted and recommended by a distinguished committee of dairy leaders appointed by the Milk Market Administrator, is a carefully-prepared proposal to adapt the dairy part of the Food and Agricultural Act of 1965 to New York conditions. As such, it deserves the careful consideration of everyone interested in our great northeastern dairy industry.

In layman's language, it is a broad outline of procedure which could be used as a basis for developing, in precise legal terms, a proposal to amend the New York-New Jersey Federal Order 2 in a way which would divide the total money in the market pool among producers in a different way than has been done in the past.

There is much to be said on both sides. Many of the objectives have merit if they can be achieved. My assignment is to present the negative side and discuss what I believe to be some of the faults and adverse effects of this proposal; I understand someone else will present the advantages and benefits.

Law Problem

With some exceptions, I believe this plan is as good as can be done under the limitations of the law. Much of my criticism is with the law (Food and Agricultural Act of 1965) and not with the plan. We have a consumer-dominated government. All agricultural laws must be for the consumer's benefit and result in a plentiful supply of low-priced food.

The purpose and objective of Congress in adopting this legislation is stated in the law "to maintain farm income, to stabilize prices, and assure adequate supplies of farm commodities, to reduce surpluses, to lower government costs and promote foreign trade, to afford greater economic opportunity in rural areas and for other purposes."

Congress did **not** intend to have this law used to raise prices. The debates as recorded in the Congressional Record and the Committee Reports clearly bear this out. If prices are changed, it will have to be done by other means.

This law authorizes a way of dividing among the producers the money received from Class I sales in the Federal pool on the basis of past production in a representative period reduced by the proportion that Class I sales bear to total production. Any proposal to amend Orders, including this New York Plan, would have to be approved by the Secretary of Agriculture before it could be voted on by producers.

The law requires an **individual** affirmative vote by two-thirds of the producers. The merits of this requirement are debatable. Bloc voting by cooperatives is sometimes criticized as being undemocratic. On the other hand, bloc voting by cooperative boards of directors elected by farmers is apt to be by people who have carefully studied the proposal, who have experience in milk marketing, and who can understand the legal terminology in the proposed amendment. Many farmers do not take the time to study and evaluate proposals of this type. Unfortunately, some vote on the basis of hunch or rumor.

Not Clear

There is no clear provision in this law requiring handlers to buy **only** from producers who have been allocated bases. The provision in the old law which forbids using Federal Orders to prohibit or limit the free movement of milk between markets was not repealed. It would appear that if bulk milk could be secured at less cost in other markets, it would tend to displace "base" milk. A base allocation without a market would be worse than valueless.

We can assume that in the interest of producers the cost of base milk could never be more than that for supplies in competing areas. This particular provision or lack of it would probably result in extensive litigation. There is wide disagreement among knowledgeable people on this point.

Producer-Dealers

The law states that the "legal status of producer-handlers" is not changed. Whether or not this language authorizes allocating bases to producer-handlers is debatable. The New York proposal assumes it can be done. This again will probably result in extended litigation.

The law states "any increase in Class I base resulting from enlarged or increased consumption, and any producer Class I bases forfeited or surrendered shall first be made available to new producers and to the alleviation of hardship and inequity among producers." This would appear to prevent **present** producers from benefitting if improved markets result from their own efforts to improve quality and support market development programs.

Our best chance to improve producers' income is by increasing Class I sales. This provision in the law would remove the incentive producers now have to increase sales. The proposed plan appears to assume the word "any" in the law means "25 percent." This would also probably have to be determined in the courts.

The law provides that this authorization for establishing Class I bases expires December 31, 1969. Congress could, if they saw fit, extend the law after this date. It would seem to be doubtful if the time and effort of paying farmers should be made until Congress takes . . . or fails to take . . . action on extending this date. There is only one federal plan (Puget Sound) of this type in effect in the country, although the law was passed in 1965. Congress could assume it was not popular among producers and there was little support for it.

Filled milk is not mentioned in either the law or the proposed plan. If cooperatives are successful in including more products and components of products in the Class I definition, a multitude of legal and administrative problems would have to be dealt with.

In general, this law is vague and confusing. The result is to delegate great authority to the Secretary with little in the way of guidelines. It is an invitation to litigation.

Termination Date

Turning to the proposed New York-New Jersey Class I Base Plan, several doubts and questions arise.

The method recommended for determining bases according to the best months in 1964-65 and 1966, and allocating bases by months, removes the seasonality factor from the plan. The problem of the big spring flush production is not as serious as it has been, but it still is a problem that has to be dealt with.

The best way of dealing with it is to reward those who produce in the short season. This plan could be improved by a provision which might use production in the months of low production to establish bases rather than give a producer with high spring production a high base in those flush months.

The 10 percent "add on" to bases to cover fluctuations in sales would seem to be very low. Experience might indicate a higher amount of milk for manufacture in the base blend might be required to supply the market under all conditions.

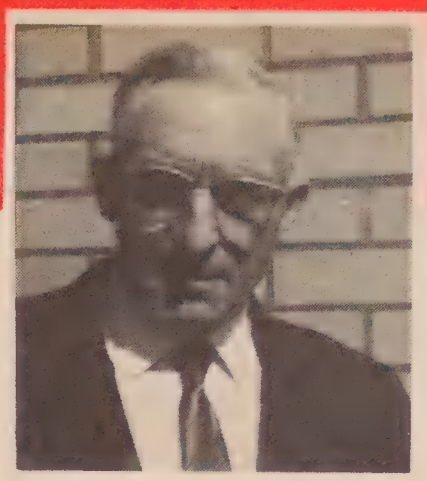
(Continued on page 13)

*Dairyman, former Vermont Commissioner of Agriculture, Consultant to the Hood Foundation. Address: Montpelier, Vermont



BASE PLAN

ANALYSIS IN DEPTH



WHAT IT OFFERS

by G. LaRue Sears*

WHY do we need a base-surplus plan or two-price plan of selling milk? The simple answer is that the single-blend pricing system has not worked very well for dairymen, especially for the last few years. In any market where the single-blend pricing system is used, and Class I milk makes up less than 75 percent of the volume of the total supply, that market is in trouble pricewise. Why? Because the pricing of Class I milk and class 3 milk (now class 2) are tied together under the supply-demand factor.

Here I want to quote two sentences of the Agricultural Marketing Agreement Act of 1937 as amended: "The prices which it is declared to be the policy of Congress to establish in section 602 of this title shall, for the purposes of such agreement, order, or amendment, be adjusted to reflect the price of feeds, the available supplies of feeds, and other economic conditions which affect market supply and demand for milk or its products in the **marketing area** to which the contemplated marketing agreement, order or amendment relates. Whenever the Secretary finds, upon the basis of the evidence adduced at the hearing required by section 608B of this title or this section, as the case may be, that the parity prices of such commodities are not reasonable in view of the price of feeds, the available supplies of feeds, and other economic conditions which affect **market supply and demand** for milk and its products in the marketing area to which the contemplated agreement, order, or amendment relates, he shall fix such prices as he finds will reflect such factors, insure a sufficient quantity of pure and wholesome milk, and be in the public interest." With 10 percent of the nation's population producers, and 90 percent consumers, where is the public interest . . . naturally, cheap food.

Fair Share

Now I have no argument with the Extension Service; they have done and are doing a marvelous job in bringing research and improved methods to farmers. The county agents are paid principally by the Federal government and work for the public interest, and this is as it should be.

However, we of the Grange feel the dairymen have not received their fair share of the results of this increased efficiency. There is no question but what the urge to increase herd size to become more efficient has contributed to the low utilization rate in Class I milk sales in Order 2.

About 9000 dairymen in the Federal Milk Order 2 area went out of business in the last three years. Yet the milk deliveries in Order 2 in January 1968 were only 54.7 percent sold as Class I . . . only 2.5 percent above the comparable figure for January 1966.

Whether it is outside milk coming in or what, this shows the ineffectiveness of our present system (regardless of how many dairymen are forced out of business) to produce a utilization rate where the Secretary of Agriculture will feel justified in raising our Class I price equal to other nearby Federal Orders. There is no doubt in my mind but that the adoption of a base plan will be the means of getting a substantial raise in the Class I price.

Narrow Spread

The Order 2 blend price for 1967 was $5.13 per cwt. for January and $5.21 in 1968 . . . only $1.25 above the manufactured price.

As of March 1968 at the Durham, North Carolina market where they are using a base plan, their base price was $6.85 per cwt. and excess price $3.50 . . . a difference of $3.35. In Richmond, Virginia, their base price was $6.85 and excess $4.24 for 3.5 percent fat. Five members of the New York State Grange Dairy Committee have recently returned from a trip to North Carolina and Virginia where they talked with several dairymen who are using the base plan. We saw milk statements with the just-mentioned figures on them.

Too Much Milk

When we of the Grange have complained to the Secretary of Agriculture about our price of milk being lower than Federal Order Markets he has told us there is so much milk in the Order 2 market that he does not feel justified in raising our prices to where we think they should be. After reading the law as quoted above, you can see that under the law and our present setup he does have some justification for the stand he takes.

We have the largest market of the nation in Order 2 to be responsible for, the largest co-ops, and the lowest price. Maybe bigness is not always the best answer. Again, why do we continue to use this single-blend pricing system when there is a much better system available, the base-surplus or two-price plan?

The principle of the base-surplus plan is very simple. It reserves the Class I milk market within a Federal Order for the producers within that marketing area.

The base is made up of Class I sales plus a reserve to assure a plentiful supply of Class I milk for that market. You receive the Class I price for your share of the Class I sales, and the manufactured price for the reserve portion.

This is called the base-blend price which is based on cost of production plus, and is not tied to the manufactured price. The manufactured milk is priced separately and this is why the plan is also called the two-price plan.

It was necessary to have special legislation to make it legal to reserve the Class I sales in a market for the producers within that market. The National Grange and some State Granges worked very hard to get this legislation, the dairy section of the Omnibus Farm Bill of 1965, and we feel our efforts helped immensely in its passage. The other organizations who worked for this legislation included most of the cooperatives, the N.F.O., the Farmers Union, and the National Milk Producers Federation.

Amendment

Now what this legislation did was to amend section 608C5D of the Agricultural Marketing Agreement Act, which said in effect that milk or milk products coming into a marketing area would be required to take the lowest classification price for at least two full calendar months.

The Secretary of Agriculture suspended this clause several years ago and allowed compensatory payments instead, whereby milk handlers bringing in surplus milk from other markets had to pay into the pool the difference between the Class I price and manufactured price. The only way Order 2 blend prices were reduced by compensatory payments was in the reduction of the utilization rate of Class I milk.

Under the decision of the Supreme Court in the Lehigh Valley Case, compensatory payments were declared unconstitutional. However, they did allow the difference between the Class I price and the blend price to be paid into the pool. So for a few years now it has been perfectly legal for a milk handler to bring

(Continued on page 18)

*Chairman of NYS Grange Dairy Committee, and member of N.Y.–N.J. Class I Base Plan Study Committee. Address: Belmont, New York.



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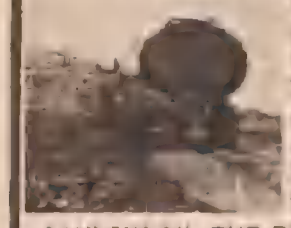
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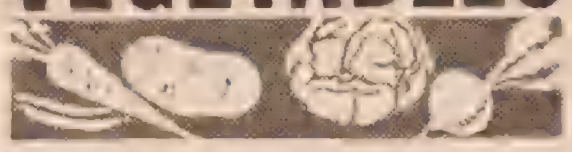


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VEGETABLES



Baby Pigs – A new approach to solving the anemia and scour problems of baby pigs has been announced by the A. E. Staley Manufacturing Company, Decatur, Illinois.

The "Day-One" management system permits the administration of iron, antibiotic, vitamins, and sugar (energy) in the drinking water of baby pigs from birth through the critical first 20-day growth period. Up to now it has been impractical to effectively provide these essential items to baby pigs during the first few days of life, and on a continuous basis.

"Day-One" is a dry water-soluble powder which is mixed one-half cup to a gallon of water. One pound of "Day-One" is enough for 10 pigs over the full 20-day growth period.

Breed Associations – The National Society of Live Stock Record Associations membership is composed of 51 breed associations representing beef, dairy and dual-purpose cattle, swine, sheep, goats and horses of all types. A report giving the name, address and secretary of each breed association, together with a breakdown of the registration figures for each, may be had on request to Allan C. Atlason, 3964 Grand Ave., Gurnee, Illinois, 60031.

Tagged – Cattle identification equipment now includes a brisket (dewlap) tag permanently fastened to the animal. A punch makes a hole in the brisket, and a nontoxic pin is inserted to snap-lock the tag in place. In addition to the number on each tag, there is also a colored dot . . . available in 5 different colors. For more information, contact C.H. Dana Co., Inc., Hyde Park, Vermont 05655.

Meat and Milk – Steers bred from high-producing Holstein bulls yield heavier carcasses than animals sired by bulls with low milk potential.

Carcasses from cattle of high milk potential will likely result in more trimmed wholesale and retail cuts. Furthermore, steaks from high-yielding Holstein cattle are as tasty as cuts from standard beef breeds of the same grade, according to University of Wisconsin meat researchers.

PRECONDITIONING

There's a $64 word going around in beef circles these days . . . preconditioning. It simply means preparing feeder calves in advance for the stress of shipping from producer to the feedlots.

The National Livestock Feeders Association has listed seven treatments and practices considered to be reasonable standards for preconditioning:

1. Castration and dehorning of calves at the time of preconditioning are both advisable and appropriate.
2. Vaccination of calves for black leg and leptospirosis after three months of age.
3. Weaning of calves 30 days prior to shipment, during which time they should be confined and put under observation for at least three weeks.
4. Vaccination for "red nose," bovine virus diarrhea (BVD) and shipping fever complex.
5. Treatment for grubs.
6. Check feces for worm eggs and worm if necessary.
7. Generally ascertain that the animals are in a healthy condition and such treatments as needed have been applied.

Experts disagree as to whether preconditioning will be sufficiently profitable to the calf producer to warrant the extra expense. Some, though, are predicting a growing trend toward fortifying the little dogies before they move to the feedlots.

Different

(Continued from page 3)

eral catalog houses carry them.

Espaliered plants, trained on a fence, wall or building to grow in a pattern, are delightful and can lend a great deal of interest to bare or bleak surfaces. Fruit trees, shrubs or vines can be treated this way and provide different and delightful results. It's simply a matter of patience and time, and you can accomplish all sorts of unusual effects. We have used forsythia, some of the viburnums, and several of the Cotoneasters for espalier or pleaching work, as well as fruit trees.

The secret is to place the new plant as close to the wall or fence as possible and shape the new growth by tying it to supports on the fence or wall. You can get very formal effects by using a "U" shape, or a repetition of "U's" to make a candelabra form. With forsythia or some of the other shrubs, they can be merely trained as vines rather than grown in their usual form.

It takes constant attention and a lot of time to do this sort of thing because you have to continually nip off errant sprouts, either at ground level or ones that want to grow out and away from the wall or fence. There are many references to this interesting way of growing plants in most good garden books.

This espalier or pleaching treatment is generations old, and many of the old gardeners of Europe have fascinating plant shapes they've worked on for years and years. Try a little patience with almost any plant you can think of, and you'll be surprised what you can accomplish. It will be fun, and you may develop a real conversation piece.

Class I

(Continued from page 10)

The procedure for hardship cases is perhaps the best that can be done in this very difficult and controversial field. This brings to the front one of the big administrative problems in a plan of this kind. The more adjustments that are made, the more producers lose confidence in the fairness and good faith of those who administer the plan. This occurred under the old open-base plan which was in effect in the Boston Market previous to World War II. It could be expected that the volume of requests for review, and the administrative costs, would be high.

Some general comments on the whole idea would seem to be appropriate. Again, these are all on the negative side.

This plan grants a valuable asset to present producers, and causes a heavy capital investment for new producers and those who are expanding their operation to secure maximum efficiency. After the first generation, it would be another large overhead cost for milk producers.

This idea puts the government still further in the field of regulating agriculture and farm management decisions. The history of regulation in other commodities is not good and there is no reason to think it would be any better in the dairy industry. Many farm organizations oppose the idea. This is a negative, defeatist approach to a problem that can be better resolved by improved quality, more sales promotion and coordinated cooperative action.

Present technology makes possible and necessary the constant increase in size of our family farms in order to reduce unit costs. The Class I Base Plan would, if successful, tend to slow down this process. It would also tend to restrict the ambitious, skilled and energetic producers who are necessary to keep our industry competitive with other products and other industries.

The idea that this proposal would reduce production should be carefully examined from the standpoint of fixed and variable costs in milk production. If we can assume that total costs are one-third overhead, one-third purchased feed, and one-third other costs (including labor), it is evident that reducing production will only reduce the cost of purchased feed, machine operation, labor costs on the large farms where a man can be eliminated, and some miscellaneous items like breeding and veterinary fees, etc. Once the fixed costs . . . which occur regardless of volume . . . are paid, most farmers can produce milk for manufacture for less than the increase in variable costs per hundredweight, and probably would do so.

The administrative costs of operating a Class I Base Plan are unknown. They would be more than the cost of Federal Orders at present and would, of course, be paid by producers. Litigation can be expected, with attendant costs and adverse publicity for the industry.

This idea would not increase . . . and might reduce . . . the total amount paid to dairy farmers. It would arbitrarily grant to present producers an asset which could be sold. It would eventually add another investment and overhead cost to the production of milk. It could be terminated, changed, or entirely rewritten at any time by a consumer-dominated Congress . . . or by administrative action of the Secretary of Agriculture.

It would complicate farm management decisions and slow down the trend toward the efficiency in production which enables dairymen to compete with other commodities. History indicates that regulation by government leads to more regulation, with unfortunate results for farmers in general. While a Class I Base Plan would benefit some of our older farmers, there is little reason to believe it would be of long-term benefit to farmers in general when compared to the costs and disadvantages.

GAS WELDING

A new 64-page booklet of projects for the oxy-acetylene torch on the modern do-it-yourself farm contains 12 sections.

The purpose is to help the farmer design and adapt ideas for solving special problems, constructing special equipment, modifying and improving present equipment, repairing broken equipment. There are also sections on beautifying the farmstead and using the torch for hobby projects.

All of the 139 ideas included were developed by farmer-welders who found a solution to a particular problem.

For your copy, send 25 cents in coin or stamps to cover postage and handling to Education Department AA, Smith Welding Equipment Division, Tescom Corporation, 2633 Southeast Fourth Street, Minneapolis, Minnesota 55414.

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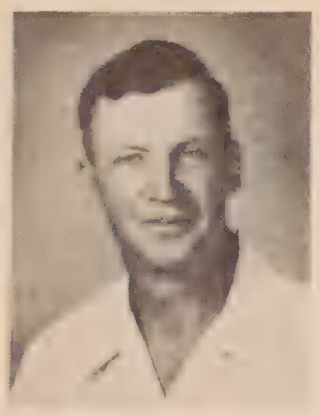
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Gayway Farm Notes

by HAROLD HAWLEY

TIE IT DOWN

We are all enthused about getting some fertilizer on early so as to save time later when we would want to be plowing. About the time we were ready to put on a bunch, it began to rain. There was still frost in the ground, and after a few hours of rain water was running everywhere . . . even on pretty-level land. The water was brown from the manure that had been spread on the fields. We sure were tickled it wasn't carrying our fertilizer along with it, which it surely would have been had we spread it.

We've now decided to play it cool and wait until we are reasonably ready to get it plowed down. It's just too much money to spread around out there unless it can be tied down. Ideally, if one could get the stuff when he wanted it, he would plow it down right behind the fertilizer spreader and cut the losses to nothing. But experience suggests that not everyone can get a load of fertilizer just when they want it if everyone waits until the last minute.

We have several times got the stuff on pretty early. Immediately the sod began to grow like foolish, and in a matter of a few days it became imperative that it be plowed. This whole thing then becomes a kind of a balancing act; trying to avoid fertilizer losses by too early spreading and washing away, and trying to avoid loss of time waiting for fertilizer and spreading it when the weather finally breaks and one's time is suddenly at a real premium.

TAXES

With real estate taxes (like all other kinds) rising, and rising some more, it becomes imperative that farmers take a hard look at their assessments. The excellent report of the Commission on the Preservation of Agricultural Land states that the State Board of Equalization and Assessment has reported that approximately 95 percent of all New York farmland is over-assessed.

It's not going to be an easy thing to rectify this situation, and certainly it will not be done unless farmers act on their own behalf. There have been meetings of groups of farmers and their assessors at which the rolls have been reviewed. This involves a comparison of the assessments and selling prices of urban, non-farm rural, and farm properties. Assessors by and large are fair-minded people who want to do the right thing. When inequities have been noted, adjustments are usually made. Such a procedure, if carried out in a friendly atmosphere, has much to recommend it. Considering where school taxes alone are headed in many communities, it becomes a matter of important business to try for fair and equitable assessments for our farms.

THE NEIGHBORS' JUDGMENT

In any community there is a body of opinion about the folks down the road. It's possible they may be regarded as conservative, thrifty, sound folks. They may have earned another kind of reputation . . . the kind who spend it and live it up as fast as or faster than they earn it. They come to be known for the new cars, clothes, etc. they always have. Over time, the neighbors form opinions as to whether they are a good credit risk, or those who sooner or later will be unable to square up accounts with all their creditors.

As this is being written (March 16) the family of nations has shown their concern over the judgment, conduct, and soundness of the folks who live over in the U.S.A. They have looked at our continued policy of spending more than we earn, and at the unbelievable debt structure we have developed. Having taken this into account, they then have looked at our imbalance of world trade, the gold drain from this country, and the inflationary spiral we are experiencing. As if all this wasn't bad enough, they see where we plan to continue with an unbalanced budget . . . spending, spending . . . doing everything for everybody, unable or unwilling to set priorities and to wait to buy and pay for some of the "urgent social reforms" some members of the family just must have.

Finally, the consensus of the best minds of our neighbors has led them to conclude that we will have to do something drastic like devaluing our currency in addition to removing the gold cover for the dollar. Their confidence shaken, these people are speculating that this family's (nation's) checks aren't quite as sound as they ought to be. Thus the big run on gold.

It's interesting to note that while many of our citizens have been sounding the alarm at our fiscal policies, it has taken the opinions of the neighbors to finally make it clear to all that we must shape up as a nation. No one expects the government to suddenly change its way, but possibly this crisis may at least cause some delay in the launching of new spending programs.

If Congress will insist on budget cuts before enacting tax increase measures we will at least have taken the first step toward putting our house in order. If this happens we can thank our neighbors for their actions, which brought to everyone's attention what they were thinking of their spendthrift neighbor, the United States.

WINTER BARLEY

On fertile, well-drained soils in our area winter barley does real well. Its biggest drawbacks have been its poor standability, and the price. These two factors have caused a considerable decline in acreage.

With wheat prices as low as they are, there should be an incentive for some people to switch back to winter barley, at least if they can feed it at home. Custom seems to keep a lot of dairymen using corn when they might well feed barley in its stead. For years we found it made sense to sell corn and feed our barley, what with corn bringing eight to fifteen dollars a ton more than barley and not being worth the difference.

It continues to be a puzzle to me why feed companies and farmer co-ops who are anxious to cut feed costs to their patrons do not use less corn and some of the cheaper barley in their cow feeds. A little switch in ingredients could cut feed costs and strengthen the demand for barley.

It's reasonable to assume that research to improve barley varieties will lag if the acreage continues to decline. If, on the other hand, the crop was of interest to more people it would be logical to invest money in research to continue to improve the varieties. Naturally, many of us are interested in the potential of growing malting varieties as a cash crop to be sold to breweries. Whether this will develop for us we cannot yet tell.

"A LITTLE DAB'LL DO YA"

The oft-repeated television commercial has a lot of application when it comes to minerals for cows. A little shortage or imbalance of minerals can cause a lot of grief, and we think the addition of some extra minerals sure can cure or prevent a lot of ills.

In addition to the minerals in the pellets we were buying a year ago, we were making minerals available free choice in a box. We aren't sure of the cause or cure, but late last winter and early last spring we were beset by all kinds of troubles when or right after the cows freshened. These problems ran the whole gamut from milk fever, metritis, inverted abomasum, acetonemia, and retained after-birth. Each cow chose her own particular kind of ailment and these problems went on for about two months, involving more than a third of the cows that freshened during that period.

We aren't sure that it made any difference, but we started to make minerals available in several locations. In addition we made loose salt available in extra spots. The net result was that total consumption almost doubled. Almost as if by signal, the troubles ceased.

Whether there was a real cause-and-effect relationship, or whether something else caused the improvement, we do not know. All we know is that the experience gave us a lot of religion as far as minerals are concerned. It's not that expensive to be sure that every cow can get minerals any time.

In addition to what they get in the grain, the cows average upwards of a pound of minerals a cow per week plus loose salt. This is higher since we quit feeding low producers and dry cows any grain in the parlor. All they get is high-moisture ground ear corn which, of course, has no minerals added.

We should be talking about the calcium phosphorus ratio, but to be honest we didn't really change this enough to be at all sure that the additional phosphorus was responsible for the change in the herd health.

This level of mineral intake which seems so high to us probably isn't so great when one considers the amount of minerals that are secreted in the milk. What does puzzle us is the fact that for years our cows got minerals . . . but not in these quantities. Were we always shorting them just a little even if not enough to cause problems?

QUALITY

Possibly one of the outstanding phenomona of recent years has been the sharp increase in horse numbers. Of course, I refer to pleasure horses. Horse shows and contests of various sorts have put a premium on good horses, riders, and training. This is fine, and along with hundreds of others we are thrilled at the fine animals being shown. They are a tribute to the skill and dedication of the men and women who bred them.

There is another side to this picture which is not so pretty. Quite properly, many of the new owners of horses are youngsters. Some of them, as well as some of the more mature new horse owners, aren't aware of the need to exercise care, judgment, and restraint when it comes to breeding horses, as with anything else. It's a crying shame to see some of the animals that are mated; their

(Continued on next page)

offspring are bound to be disappointing.

Because a stallion happens to be located nearby is no reason to use him unless he is really of good quality and of the right breed. As a matter of fact, it is distressing to see some of the animals that are left ungelded. I suppose it's no different than the scrub bulls that were a part of the dairy picture before artificial insemination became so widespread.

If A. I. for horses does nothing more, it should encourage some horse owners to use semen from high-quality stallions of the same breed as their mares. It will, of course, be a good thing for regular established breeders also, but if it helps to eliminate the use of the scrub stallions around the countryside it will have earned the thanks of all horse lovers.

DISCOUNTS

We are as avid as the next one to get discounts for cash for early ordering and early delivery, volume, or whatever else is available. Many of these are large enough to justify the borrowing of money if necessary in order to pay cash for something bought.

For years we've paid insurance premiums (fire, livestock, floater, etc.) for 3 years in advance. Guess we never bothered to figure it but knew it was cheaper that way. Recently we pushed a pencil a little to see whether the saving made by paying for 3 years ahead instead of for one year was worthwhile. It was amazingly large. One could afford to borrow at way over any market rate in order to pay for 3 years in advance. It's the biggest bargain in prepayment of anything we know.

GOODBYE BURLAP

More and more we have less and less burlap. Was the time we had an inventory of two or three hundred bags around to haul grists and to hold cow feed, broiler and growing mash, and scratch grain. These, of course were pressed into extra duty at combining time. Grass seed came in cloth bags, and seed grains came packaged in burlap sacks. Even binder and baler twines were wrapped in burlap. There were always bags to be "sold back". Always there were lots of old bags around to use as grease rags when working around machinery; and always we had some to throw over our knees or on a wet tractor seat in bad weather.

Prepare for change again! Just as we've had to learn to do without baling wire so I expect we will soon learn to get the job done without burlap bags. Bulk delivery of feed and bulk handling of grain from combine to bin to market has displaced many bags. Recently seed, dairy minerals, and many other items have come in multi-layer paper bags.

The next step is a plastic job which will handle calf feeds and cow feeds (if bagged). This will be a throw-away item. Let's hope it will have some by-product uses as did its predecessors. A farm with no baling wire, no burlap bags, and no odd pieces of old harness to use will indeed have reluctantly arrived in a different era.

BAREFOOT BOYS

As the ground warms, it seems that we should see a barefoot boy occasionally. This fine old custom seems to have mostly passed into the memory book. Possibly the scarcity of funds led parents to encourage barefootedness back in yesteryear.

Got to thinking about this the other day when we were reading about some school authorities objecting to the hair styles and dress of some of the students. Concern on the part of the teachers over the appearance of the kids is not as new as one might guess.

We used to go barefoot all summer when we were kids. Feet got tough enough so we could run across new alfalfa stubble with little concern. At any rate, along about the time we entered third grade we went to school in the fall barefoot as did several of the other kids. The new teacher took a pretty dim view of our shoeless feet and laid down the law.

To this day I can recall our righteous indignation that we should be denied our freedom to go barefoot! The whole bunch of us met outside after school and solemnly agreed that we'd all show up next day without shoes and prove our right, once and for all, as to how we should dress. I can't speak for the others, but I went home and discussed the unfair situation with my mother. Next morning I showed up bright and shining . . . and well shod.

Fortunately, each of the other boys had likewise "listened it over" with his folks, and they too sported footwear. Thus ended the revolt and that's how freedom was lost. Now the schools and the kids are refighting the old battle. Well, kids, you can't win 'em all!

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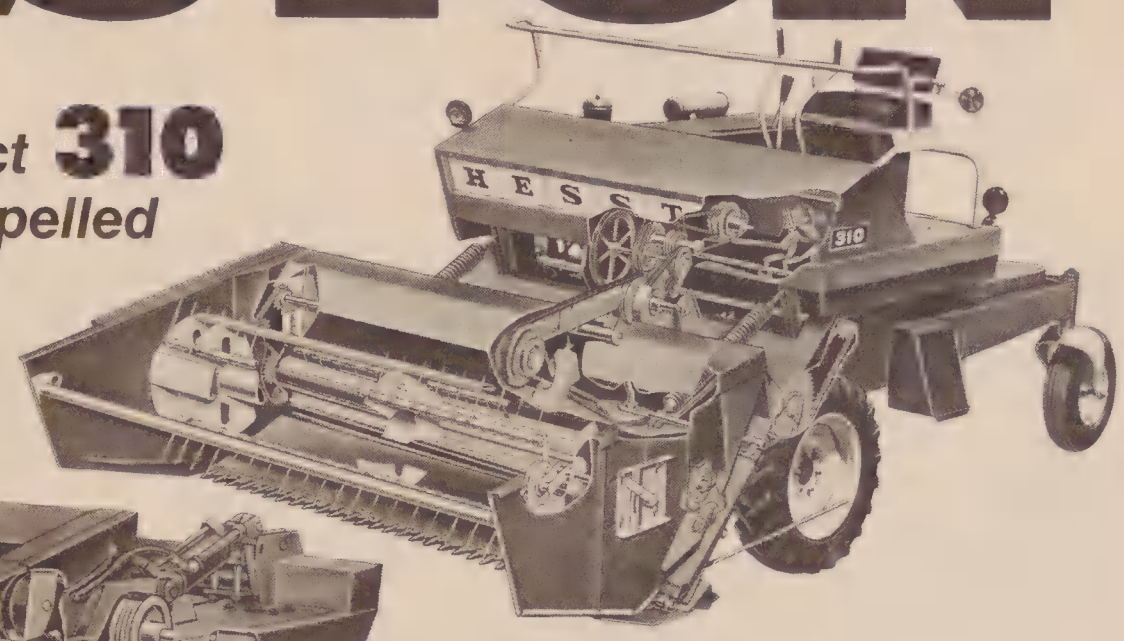


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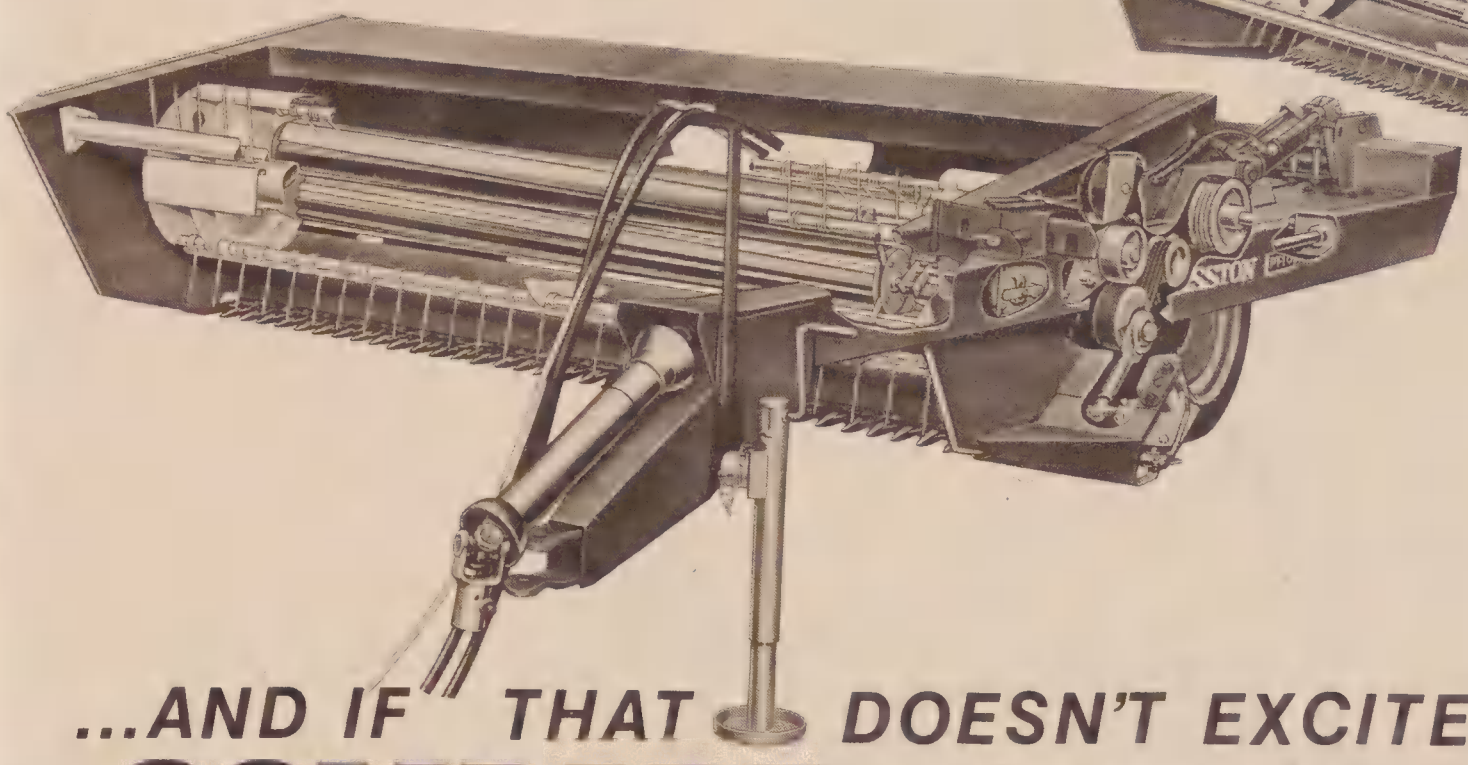
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Hesston PT-10 gives a full 9′3″ cut—wider than other makes. ■ Crop is fed directly from the cutterbar to a 110″ conditioner for thorough, uniform conditioning. ■ Windrow forming shields easily adjust from a full-width swath to a tall, airy windrow to meet your drying conditions. ■ New radial and vertical flotation let you operate in rolling hill conditions. ■ New drum-type reels eliminate cam track for quiet operation and less maintenance. ■ Hesston 310 has 90″ conditioner, 8′ cut, same Trim Steering that gives easy one-hand control on bigger Hesstons. ■ The 310 is the first self-propelled with direct-feed conditioning.

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Class I

(Continued from page 11)

in surplus milk from outside Order 2, pay into the pool the difference between the Class I price and the blend price, and then sell this milk as Class I and put milk produced by Order 2 dairymen into manufacturing plants, so they can run at capacity and make a profit for the handler.

Lowers Blend

This not only reduces our utilization rate in Class I and reduces our blend price, but it makes it harder to get a raise in our Class I price. The manufactured product, if it cannot be sold in the channels of trade, can be turned over to the Commodity Credit Corporation and us dairymen, and consumers can help pay for it with our taxes. The difference between the blend price and the manufactured price, less hauling charges, is also profit to the handler.

Dr. Anson Pollard, the Order 2 market administrator, was quoted as saying that to bring the Order 2 utilization rate up to that of Order 4, where their blend price runs close to $1.00 per cwt. above ours, we would have to eliminate as many producers as the Northeast Dairy Cooperation Federation, Inc. has as members. But about 9000 producers **have** gone out of business in Order 2 in the last three years and our utilization rate has increased less than 3 percent. Now there is a better way and a more businesslike way to handle the dairy industry.

I wish to quote here the first two sentences of the amendment to the Agricultural Marketing Agreement Act: "(D) a further adjustment equitably to apportion the total value of the milk purchased by any handler, or by all handlers, among producers and association of producers on the basis of their marketings of milk, which may be adjusted to reflect sales of such milk by any handler or by all handlers in any **use classification** or **classifications**, during a representative period of time which need not be limited to one year. In the event a producer holding a base allocated under this clause (D) shall reduce his marketings, such reduction shall not adversely affect his history of production and marketing for the determination of future bases."

Individual Vote

In order to use this amendment in a federal order, it has to be voted on individually by producers and approved by at least ⅔ of those voting to have the Order thus amended. It can be voted out by 51 percent of the voters if they represent 50 percent of the production. Voting this amendment in or out does not throw the Order out.

This amendment, if approved by the dairymen voting (and only dairymen can vote) who will be producing milk on a given month selected by the Market Administrator as near as possible to the date the base plan would be adopted, would allow the market administrator to allocate the producers each their fair share of the Class I sales over the past year nearest the date the plan would go in effect, plus a reserve.

The study committee has recommended a 10 percent reserve. This means your base allotment would be 90 percent Class I, and if the Class I price were $6.75 per cwt. (which is comparable to other nearby Federal Order Markets now) your base blend price would be figured this way: 90 pounds of milk @ $6.75 per cwt. equals $6.075 and 10 pounds @ $3.96 per cwt. equals $.396, or $6.47 per cwt. for base milk.

The base blend price will fluctuate a little up or down as the Class I sales vary to 90 percent of the total base pounds. Here is where advertising would pay off. If Class I sales got to be 95 percent of base milk over a period of 3 or 4 months, bases would have to be recalculated because we would only have a 5 percent reserve.

If we are going to have a preferred or closed market we will have to assume the responsibility of supplying that market at all times. If the Class I sales drop off, your base blend price may be reduced a little, but there will be plenty reserve so no change in base is necessary.

Unlimited Sales

There will be no restriction on the amount of milk you sell, but you can sell only the amount of your base milk at the higher price. You can produce as much or as little of excess milk as you wish, and by blending this price with your base price, you make your own blend and your own price. This is something you cannot do under our present system. You can plan your own production to fit your circumstances, and what someone else does will not upset your plans, and make you increase production to maintain your share of the Class I market.

The study committee has rec-

(Continued on next page)



Recommended Reading
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ommended that bases be transferable, and may be sold separate from the farm or the cows. The USDA allowed this in the Puget Sound referendum. It is in the law that cotton bases may be leased. We think milk bases could be leased if asked for at the hearing. Bases can be sold only to actual producers in Order 2 (those who will actually produce them in 60 days), or whatever time the referendum states.

It would seem that there would be some bases for sale. Older men will be retiring, there will be accidents and health reasons, and some will find more attractive employment. Although bases may be sold or transferred to any producer in Order 2 by keeping the local Extension agent informed of bases for sale and of prospective buyers, the sales could be kept pretty much locally.

Bigger Dairy

But what about a dairyman who is milking 30 cows and wishes to increase to 50 or 60 cows under a base plan? Different circumstances would make different answers. If you owned enough land, buildings were adequate to accommodate the extra cows, perhaps you could afford to produce milk at the excess price. Your fixed costs, like taxes, building upkeep, and machinery would not be increased much. So if you could keep your variable costs (feed, labor and interest) below the excess price, you could well afford to do it until you could find some base to buy.

If, on the other hand, you have to buy extra land, remodel your buildings and incur a large debt, I would consider it a poor investment unless you could obtain base for at least 75 percent of your total production. Buying base should be considered as part of the investment, undoubtedly the best part . . . the part that can be paid for the quickest and still maintain its full value.

The value of a base is arrived at in this way. Take the difference between the base price and the excess price, say $2.50 per cwt., over whatever period of time would be decided on. For a year the price of 100 pounds of base would be $912.50; for 1½ years it would be $1368.75. From 1 to 1½ years is the time most generally used

Now this seems like a lot of money . . . but is it? Say the average producer is selling 365,000 pounds of milk per year, and this is pretty close to average. The study committee has figured 60 percent of our milk will be base milk. Such a producer's base milk would be 219,000 pounds, and using $1368.75 for 100 pounds yearly base, his base would be worth $8212.50. His excess milk would be 146,000 pounds (400 pounds daily), and this much base would cost $5475.00 . . . about the price of a new car and a bulk tank . . . and at the end of 1½ years he would have his money back less interest. His base would still be worth $5475.00. Would the car and tank?

Over the 1½ years you were getting your money back your interest cost would be $225. Over a ten-year period there would be 8½ years you would receive $2.50 more per cwt. for 400 pounds of milk daily, this totals $31,025. The only trouble is, can you find the base to buy? Perhaps you would only buy 300 pounds of base, because you will have to produce some excess milk in order to always have enough for your base.

What about the dairyman who wants to cut down on production? He can sell cows if he wishes. He can feed excess milk to calves to raise or to veal. He can cut down on feed and still sell the same amount of base milk at the higher price. If he should want to sell out completely he will have more equity to dispose of.

The study committee recommended monthly bases for two reasons. A smaller reserve is necessary and each producer will receive his fair share of Class I sales, regardless of his pattern of production.

Before we can have a base plan, someone representing producers will have to ask for a hearing. This is something the co-ops should do. Anyone can testify at the hearing . . . dealers, consumers and producers . . . as to any changes they would like to have made to the proposal the study committee has made.

One of the reasons for the study committee was to come up with a proposal that most all could agree to. The Secretary will evaluate the testimony and issue a referendum, state how much time will be allowed for filing briefs, and then issue the final referendum to be voted on.

There is no need for anyone to be in doubt on how to vote on the referendum. It only costs about $50 per person for a carload of five to go and investigate base plans in operation and talk with dairymen using them. They are as nearby as York, Pennsylvania; Arlington, Virginia; Richmond, Virginia; and Durham, North Carolina.



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FARM LABOR PICTURE

by Amos Kirby
New Jersey Editor

THE 1968 farm labor market for New Jersey, parts of Pennsylvania, sections of New York, Delaware and Maryland (where Puerto Ricans are involved), has a base rate for the 1968 season of $1.45 an hour, plus housing, insurance, hospitalization, two-way transportation . . . adding up to at least $2.00 an hour. This estimate was compiled by the New Jersey Farm Bureau. The legal minimum rate in New Jersey for day-haul and southern migrants has been established by the Legislature at $1.40 an hour, going to $1.50 per hour in 1969.

Will the higher wages insure an ample supply of workers for 1968? The answer to that question might be based on the experience in 1967, when wages were moved up to $1.35 an hour plus fringe benefits. Growers interviewed report that in 1967 they had better help. The higher wages brought back some of the experienced help. Even normally-critical growers admit that they had less trouble in 1967.

Another factor has been better communication between workers and employers. These older men have had experience, and can go ahead with the task to be done. And something new is developing. Some growers find that they have less turnover by letting the boss of the crew select the men who will be living in that farm. Experience has shown that differences in personalities among members of the crew can lead to more dissatisfaction and turmoil than between workers and growers.

With the camps inspected and approved before occupation, and the workers held responsible for maintaining the property in order, and for disposal of waste, much of the unrest among growers will be eliminated.

Checking with those who work with the day-haul crews out of Philadelphia and other cities, it is apparent that this supply should be equal to last year. While efforts are being made to find employment for the idle in the cities, it is found that many prefer to work on farms rather than in industry.

The uncertain angle on the 1968 labor front is the Southern migrant. This presents problems in that it involves housing facilities for entire families, whereas with the day-haul people and the Puerto Ricans it is an all-man problem and much easier to solve.

CHICKWEED CONTROL

Believe it or not, chickweed can be controlled . . . that is, if one starts at the proper time.

Tests conducted by Dr. John Meade, Extension weed specialist at the Agricultural College, shows that chemicals applied in the fall of 1967 came through as expected. Tests made in February showed that where chemicals were applied as directed, an effective control of chickweed can be expected. Among materials tested were dinitro, ChloroIPC, Simazine (available as wettable powder or fertilizer), and Diuron, available in liquid form or combined with fertilizer).

Final analysis of the check plots will be announced soon, together with recommendations for treatment of chickweed fields in November of 1968.

SMALLER PACKAGES

There are two changes coming in the 1968 models of packing and merchandising farm products. The trend is toward small packages to meet the little-recognized demand of small families and the one-person apartment dweller.

The South Jersey asparagus growers are moving away from a 50-year entrenched idea that asparagus must be packed in a 2½-pound bunch. Tests conducted in 1966 and 1967 with a large food distributor proved that consumers prefer a 1½-pound bunch. This year finds many growers swinging to the small bunch . . . along with a new crate holding 15 of the 1½-pound bunches designed for the smaller packages.

The trend for small amounts of fresh fruit and vegetables was also demonstrated at the Morris County Fair in 1967. The New Jersey Certified Farm Market Association established a full-sized roadside market at the Fair Grounds for the week of August 20 to 27. Supplied with all the standard fruits and vegetables, (along with novelties and special-

(Continued on page 26)

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Now you can use economical, powerful SEVIN carbaryl insecticide to save your alfalfa from destruction by alfalfa weevil larvae. The photos above tell the story. The difference is SEVIN! Remember, SEVIN alone at about half the cost now does the job that used to require two insecticides in a combination spray. Tests have shown that SEVIN is long-lasting and works well in cool weather as well as warm. SEVIN provides economical and outstanding control of alfalfa weevil larvae, both on the first cutting, and on the stubble to save the second cutting. You have no residue worries with hay or forage, even if SEVIN insecticide is used the day of harvest. Just follow label directions. See your supplier now for SEVIN, or write to: Union Carbide Agricultural Products, 270 Park Avenue, New York, N. Y. 10017.

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SLAT FLOOR HOUSE

Robert Cudworth

ARTHUR WILCK, Alloway, New York, houses 6000 White Leghorns in a partial slat floor house . . . with 1¼ feet per bird . . . and feels he perhaps could go to as many as 10,000 birds.

The house is built so that he has an 8 foot-deep manure pit underneath the slatted floor, and it is cleaned out only once a year (in the summer) when he needs manure for some of his cropland.

"I'm quite pleased with this manure-handling arrangement," points out Arthur. "The pit has never been anywhere near filled, and probably could go for 10 years except that we dumped some litter down there, too. If bacteria were there maybe plain manure could go forever without being cleaned out of there. We need manure for our ground, however, so we take it out in the spring or summer when it's convenient.

"Previously we rented a crawler with scoop to clean out. The next time we'll use a tractor with front end loader owned by my brother."

Arthur reports no odor problem from his manure pit . . . and a visit bore out the claim. Three ventilating fans help to keep the air clean. "Even at cleaning-out time the manure doesn't smell as badly as that taken from our cage house."

This 40 × 180-foot laying house is divided into two parts, 3000 birds in each part. Each side has a 30 feet-wide slatted feeding area and a 10 feet-wide solid floor and nesting area.

"I thought perhaps I'd have to put nests along both walls," he said, "but there has been no problem with birds laying eggs on the slats. Nests along one wall have worked fine.

"Production has been good, and I've had no special problems with disease or cannibalism. Before I put up more buildings I'll probably put more birds in this one. We already have automatic feeders and waterers, and could run them more often than we do. I think with more fans we could probably house as many as 10,000 birds here."

Arthur buys started pullets that have been debeaked at 16 weeks by the grower. Sometimes he takes them as early as 16 weeks of age, but more often they are 18 weeks or older.

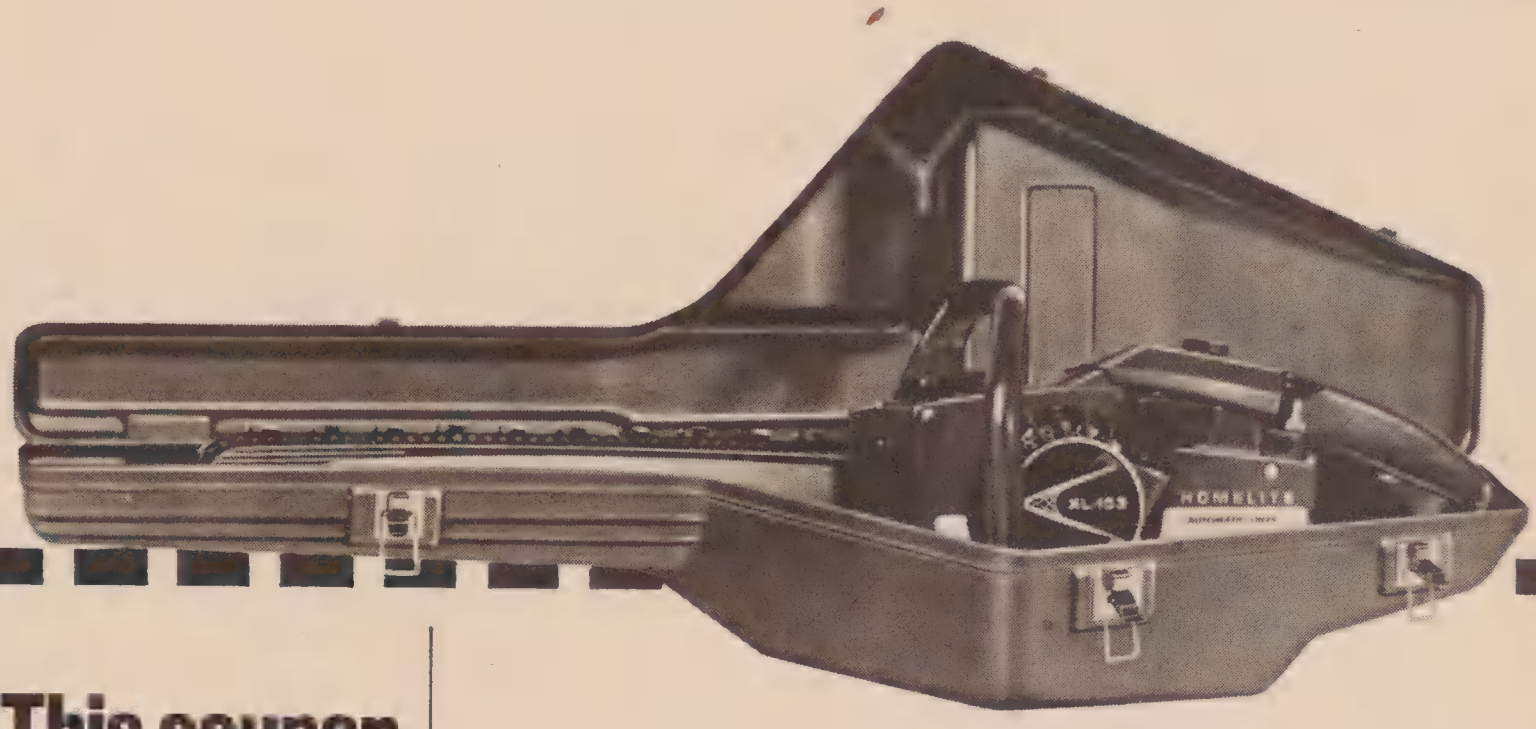
The Wilck Poultry Farm is quite well known in the Lyons and Geneva area because a retail egg and poultry business is conducted at the farm. In addition, eggs are supplied to several stores and restaurants.

In comparing his slat floor laying house with cages, Arthur points out, "I see no advantages to cages except being able to grab an individual bird when you want to. I'm well satisfied with our setup. One thing I would change if I were doing it again would be to put in a concrete floor in the pit area, instead of having a dirt floor. It would make 'easier going' for the tractor at cleanout time."

HELP AVAILABLE

Each student enrolled in the agricultural program at John Bowne High School, Flushing, New York, is required to work three summers on a farm or related agricultural establishment. These are bright youngsters who will attend an agricultural college upon graduation from high school. The girls are fifteen to seventeen years of age; many of them hope to prepare for careers in veterinary medicine.

If you're interested in providing such a student with a farm work experience this summer, call Mr. George Chrein, chairman of the agriculture department, at 212-263-1919, or write to Agriculture Department, John Bowne High School, 63-25 Main Street, Flushing, New York 11367. These personable and bright youngsters can render a useful service to you, and at the same time meet their course requirements.



This coupon is worth $15.00

when you buy a new Homelite XL-101 Series chain saw with Carry Case

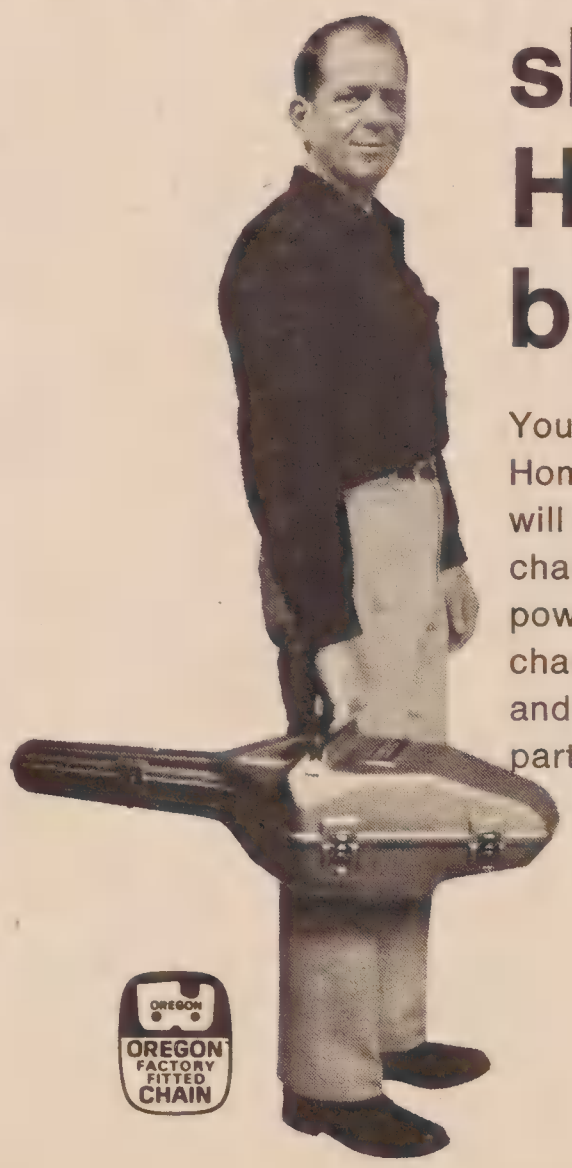
BUYER'S SIGNATURE

DEALER'S SIGNATURE

CHAIN SAW SERIAL NUMBER

Offer expires June 30, 1968

Here's a $15 reason why you should buy your new Homelite XL chain saw before June 30th

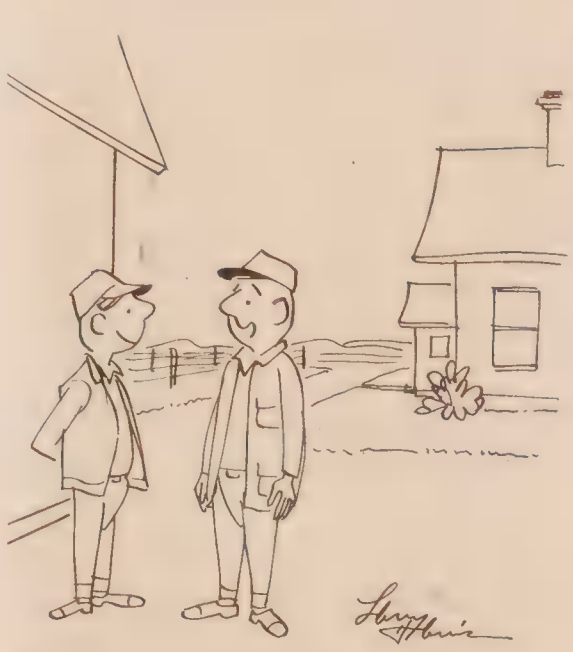


You'll save $15 on the new $19.95 Carry Case, if you buy a new Homelite XL chain saw before June 30th. One demonstration will show you why Homelite XLs are the world's fastest-selling chain saws. They're perfectly balanced for smooth-running power and easy handling. The new Carry Case protects your chain saw, and provides the most convenient way to transport and store your saw. Take this $15 coupon to your Homelite participating dealer. He's listed in the Yellow Pages.

HOMELITE

4005 RIVERDALE AVE., PORT CHESTER, N.Y.

A textron DIVISION



"Blew a tube in the TV last night. Had a real good sleep!"

A ONE-MAN FARM

I have no plans to get bigger. By putting all the corn in the silo and buying concentrates for the herd I could add 15 cows to the present herd of 52. But that would mean a hired man, and I prefer it the way it is. Also, I have figured pretty close and I can't see that I would be any further ahead.

One son, now 15, is in high school, and he is the only help except that I trade help with some neighbors to fill the silos.

We started on this farm 19 years ago, after renting another place for three years. There were 32 cows on the place, and right away I bought 8 more. Then I increased slowly to the present number. Two years ago we added 40 feet on the barn.

The purebred Holstein herd is in stanchions. We have a dumping station, and a bulk milk tank.

The milking herd gets no hay. Their roughage is haylage (mostly alfalfa) and corn silage. We pick 15 to 20 acres of corn, some of which went 180 bushels per acre in 1967. Calves are fed all the second-cut alfalfa they want to six months of age.

Once a week a portable grinder comes and grinds corn and a little distillers' grain to make a 12 percent ration. Usually the corn lasts until the new crop, but if it doesn't I buy some shelled corn. The top amount of grain per cow per day is around 35 lbs. The average grain for the herd for the year is 4100 lbs. per cow.

With homegrown grain and a herd average of 14,163 3.7 524 fat, we spend less than 10 percent of milk receipts for purchased feed.

Some years ago we put a lot of work and money on improving permanent pastures. But the season was short and I decided I could get more for my money by putting fertilizer on meadows. So, after the first cutting I put on 300 lbs. per acre of 0-25-25. All the manure from the herd goes on 25 to 30 acres of corn. On some fields I grow corn after corn, one field for 8 years.

Some heifer calves are raised for replacements, the rest sold as calves, often to 4-H Club members. The other day a heifer was born in zero weather. I put her under a heat lamp and surrounded her with baled hay and she perked up right away. We put all calves born in cold weather under a lamp for a few days to get them off to a good start.

We look for 25 tons of corn silage per acre. Recently we went to 32-inch rows, and plant enough seed to give us 24,000 to 26,000 plants per acre. On corn ground we plow down 100 lbs. of nitrogen, and use 225 lbs. of 6-24-24 in the planter. Two to five pounds of atrazine is applied after planting, and no cultivation is done. This year we plan to try liquid nitrogen.

I like a stanchion barn. If we should have a fire I would look into the possibility of a free stall pen stable. If I decided to build a stanchion barn it wouldn't be a "hip" roof. We don't need hay storage . . . in fact, we are using the present haymow to store tools. — *Bud Anderson, Kennedy, N.Y.*

Personal Farm Experience

The items on this page all come from the firing line of farm production.



Mr. and Mrs. Everett Mosher, who have lived on their farm all of their lives.

NEW BARN

We have lived on this farm all our lives. Fifteen years ago, when we started farming for ourselves, we had 55 cows and a work force of 3 men. We increased the herd slowly until we had 75 before we built the new free stall barn. Now we are milking 95 with the help of Mrs. Mosher and a boy that works 6 hours a day.

Production per cow has increased, as well as production per man. Eleven years ago the cows averaged to produce 9000 lbs. of milk annually; now the average is 15,000 lbs.

The new free stall barn, built in '66, saves a lot of labor. We also think the cows are healthier and produce a bit better. We feel that a free stall barn requires better management because you have less contact with each cow; however, I can still recognize each cow.

This farm has 500 acres with 350 tillable. We grow 80 acres of corn and 20 of oats. We have grown corn on some fields for 5 years running.

The cows run on improved rotated pasture, but get good pasture feed for only about 6 weeks. They get 4 to 5 lbs. of dry hay a day, plus about 80 lbs. of haylage and corn silage. They are fed by loading a self-unloading wagon and putting the feed into a bunk in the barn. We do not have an automatic feeder.

We put the manure on corn ground and get a complete soil test for commercial fertilizer and lime. In this area some land that hasn't been limed needs as much as 5 tons per acre, then half a ton every year.

We have three children, a boy who is 11, a girl 10, and a boy 7. — *Everett Mosher, South Dayton, N.Y.*



William Bottcher. He sells nearly all of the production from 160 acres at the farm.

LOCAL SALES

We grow vegetables on 160 acres, selling practically the entire production here on the farm. About a third of our income comes from customers who "pick their own" produce, with the balance from sales at our roadside stand.

Each spring sales begin with flower and vegetable plants from our greenhouse. As the season progresses we sell peas, strawberries, sweet corn, snap beans, tomatoes, cucumbers, potatoes, and cabbage. These crops can be sold successfully on a "pick your own" basis, as well as at retail in our stand.

We have had very little trouble with customers in our fields, many of whom come regularly. Actually, "pick your own" customers are often more careful in the strawberry field than hired pickers. Also, they will do a more thorough job of harvesting when the picking is not good. We vary the price to the customers according to supply and demand, and to the quality of the picking. These rules in general apply to all the crops.

With potatoes, we dig out a small supply, wait until they are picked up, and then dig some more. Sometimes there are so many customers we can hardly keep ahead of them with a two-row digger. Our usual price is $1.50 per bushel, and we grow 25 to 30 acres. Last year we used a card system to check the potato customers in and out. We entered the license number of the car on the card stub, which we would keep at the stand. When the customer returned from the field we recorded the quantity of potatoes and amount of payment on each part of the card. This system worked so well we plan to use it on strawberries this season also.

Sweet corn is our biggest crop. Each year we grow 50 to 60 acres, most of which is sold at our stand at retail. We pick several times a day to be certain the quality is the best possible. When we have an excess of corn in the field we let customers "pick their own" by the bushel.

Customers come to pick their own for several reasons. Some want to save money, some like the fresh-picked quality, and others just come for the fun of it. Whatever their reason, they do come, and they take a lot of produce home with them.

The amount of help we need on the farm varies with the season. In March we start with one man, increasing to five or six in midseason. In our stand, which we rebuilt last year, we use family help, including my wife, my mother, and two college-age daughters, as well as from one to three other women.

This farm has been in the family for over 100 years. We operate it under the name "Bottcher Gardens." Our best friends are the customers. — *William Bottcher, Big Flats, N.Y.*

25,000 HELPERS

We started in the poultry business seventeen years ago with 375 hens, and have gradually expanded to our present capacity of 25,000 hens. We also have 50 acres of apples and grapes on which we use part of the poultry manure.

We built the first poultry house for 375 hens in 1950. In a couple

(Continued on next page)

of years we built an addition the same size, and a year later doubled the capacity again to take care of 1200 layers. The birds were all on the floor. Then three years ago we built a cage house to hold 12,000 layers.

We had experimented with cages in the old house with 20 birds in a colony cage. In the new house, four rows of cages hold four birds each. The cages are in two tiers but like stair steps, so droppings fall directly into the pit.

The pits are two feet deep and are cleaned twice a year. We plan to finish the spring cleaning by the middle of May, and don't clean again until October.

We use a garden tractor on the alleyway with blades that push the droppings to a cross alley at one end. This has a slight drop, and the manure flows slowly by gravity and drops into the spreader.

We have 150 acres of land with about 50 acres in apples and grapes. Some of the manure goes on fruit, and some on ground where we plan to set more fruit.

Right now we have two part-time workers, which we figure as equivalent to one man. In harvest time we hire local help. The workers prefer straight wages rather than piece work.

We do not have an automatic feeder in the cage house, partly because of the added investment it would take. We feed from a motorized cart, which distributes the feed to the feeders. We buy all the feed.

About half the eggs are delivered in cartons to 15 stores within a radius of 20 miles. Deliveries are made twice a week. The rest are taken to a packing plant in the area. Eggs are gathered by hand, then put in a cooler until they are washed, candled, and put in cartons.

We have been buying chix and hiring them raised to 20 weeks on another farm. We buy the feed, and the man who grows them provides labor and a building. We are seriously considering raising our own replacements. We have the space, so would not have to build a brooder house. *—Edgar Backlund, R.D.2, Seneca Falls, N.Y.*

NEVER A SURPLUS OF QUALITY

Vegetable growers have more freedom and less regulation than any farm group I know. It's my feeling that had government attempts to help growers by controls and subsidies been tapered off years ago we would all be in better shape now.

Like everything else, vegetable growing has changed, but one thing has not and will not change. On a given day there is never enough in a market of any crop which has top quality! Housewives want quality vegetables, and it is up to growers to give them what they want. It is essential that we keep breeding improved varieties adapted to conditions of the Northeast, and that we get them to the consumer while they are fresh.

The trend is to specialize in the crops we can grow best. We grow sweet corn, lettuce, cauliflower, parsnips, turnips, spinach, and carrots.

We quit growing onions. We figure that 25 acres is the absolute minimum volume to warrant complete mechanization, so we got out.

We have enlarged the acreage of sweet corn. In late April or early May we make the first planting of 25 acres, using five varieties with maturing dates of 68, 72, 74, 78 and 84 days. Then once a week until June 18 we plant 5 to 10 acres of Merit, a variety that has done very well for us.

We grow 15 to 18 acres of spinach, which goes to a "prepacker" who puts it in consumer-sized polyethylene packages. Carrots are sold and handled the same way.

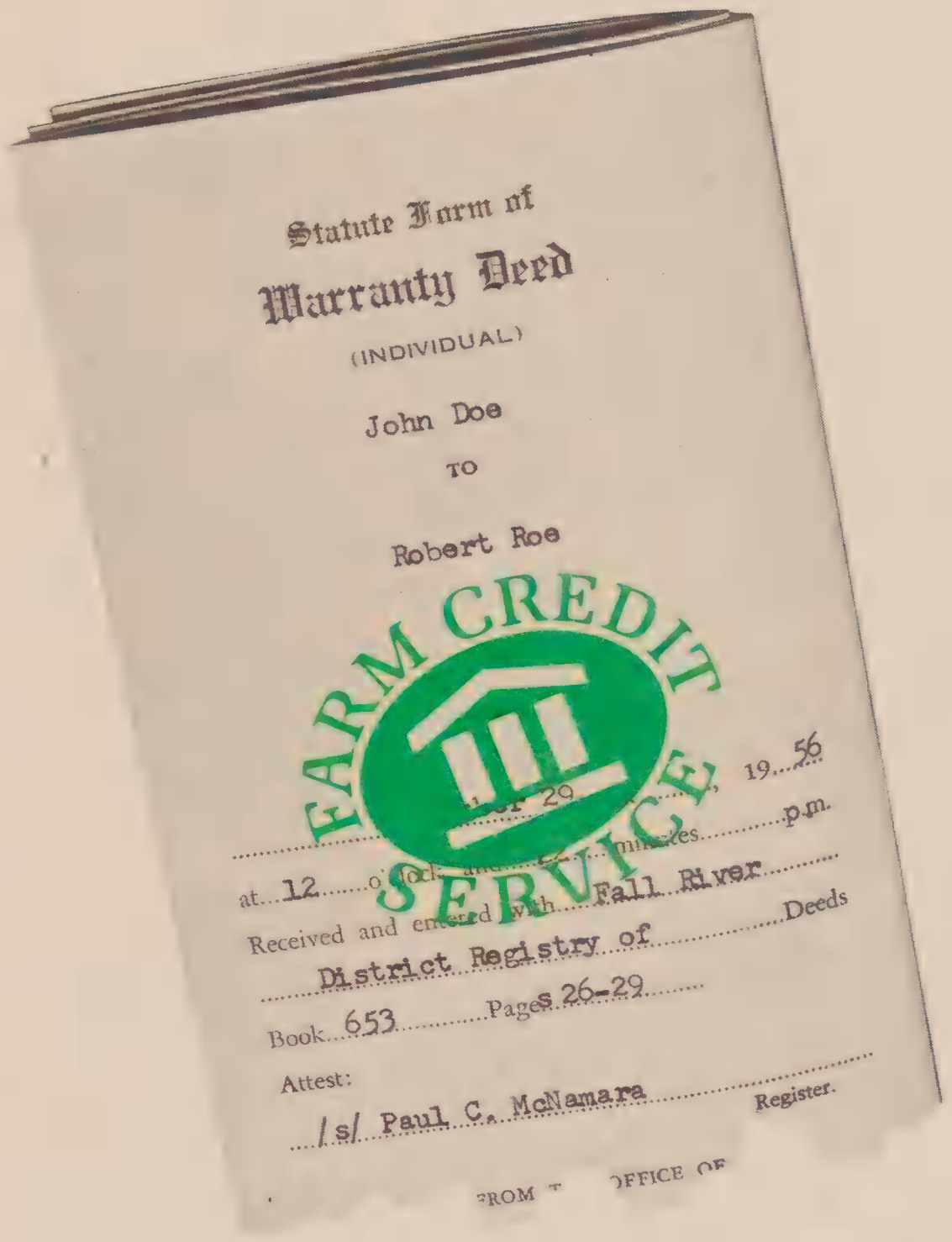
Recently we have been growing turnips, a very easy crop to grow. We begin to plant as early as possible, and put in an acre or two every two weeks. In the past many growers have considered turnips a fall crop, but we harvest over a long season.

At one time we grew some broccoli, but it is a fussy crop, deteriorates rapidly if not refrigerated after harvest. So we quit growing it.

Always we must try to do more with the labor we have. Years ago when cauliflower was cut and brought in to a packing shed, 4 or 5 men would put up 40 to 100 boxes per day. Now by packing in the field eight men can put up 50 boxes an hour!

Regulations still plague us, such as the minimum wage law and other government attempts to regulate our business, which in the end seem to cause more problems than they solve.

We plan to treat migrant help fairly so they will return year after year. Yet we have the so-called "do-gooders" trying to tell us how to run our camp and handle our help. *—Henry Marquart, Jr., Cherry Creek, N.Y.*



Your own answer to land ownership

Farm land is different from other land. It's something special . . . and it takes a specialist to understand and appreciate that. It takes a man with the knowledge of a farmer — your knowledge, and the experience of a banker . . . a man you can do business with.

That man is your Farm Credit Representative. He's well acquainted with current and past land values, and he has some solid ideas about future prospects. He's an old hand at tailoring mortgages to meet specific requirements and arranging terms to fit seasonal incomes. Down-to-earth rates and interest charged only on your outstanding balance — not on the full amount of your loan — are part of his service.

For money to finance land, buildings, equipment or *any* personal requirement, see your local Farm Credit Representative. He's the man with the best answer for every one of your financial needs.

Your OWN Farm Credit Service
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LAND BANK AND PRODUCTION CREDIT LOANS





A Case man gets the jump on quality

Whether you feed hay or sell it, the profit comes from preserving the best Nature has given to you. Every Case hay tool is designed with that aim in mind: *Simple* to avoid harvesting downtime. *Swift* to make hay fast when the crop's at its prime.

Single pass windrowing with the Case 555. Why waste time, fuel and money beating up and down the same field? The new 555 replaces mower, conditioner, rake. Does all three haying jobs at lowest cost. Big 9-foot header. Folding-finger reel gently sweeps crop to conditioner rolls without touching ground. Full-width 110-inch conditioner. Easy-adjust shields make rapid curing swaths or high, fluffy windrows the way you like 'em.

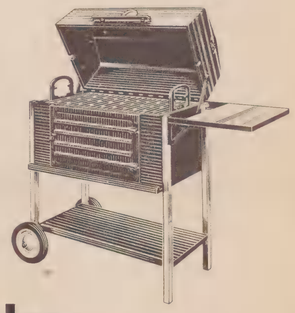
The Case 230 makes baling smooth and easy. Every time you kick or fork hay around, you lose valuable protein-rich tips and leaves. Not so with the 230 . . . in one sweep its gentle Sweep Feed whisks the crop from the 60-inch pickup directly to the bale chamber . . . keeps more of the quality in the hay. Delivers square, sure-tied 14 x 18 bales for easier stacking or storing. Simplified feed and drive train replaces over 50 conventional parts. Plunger-powered bale launcher is optional.



Want to go the haylage route? If you do, the Case 300 forage harvester is the acre gobbler for you. Heavy 9-knife cylinder. Precision chops from 13/64-inch to as long as 2⅛ inches. Built-in sharpener. Available with 61-inch pickup for handling tough, wilted windrows, or cutterbar with 1400 spm sickle for cutting a clean, 7½-foot swath in standing crops. One and two-row corn heads also available.

And there's still more! If you don't see the machine that's right for you, remember, your Case dealer has one of the longest hay making and hay handling lines in the field! Lease and Crop-Way Purchase Plans. J. I. Case Company, Racine, Wisconsin.

Ask Your Participating Case Dealer How You Can Get This $127 Deluxe Grill-Broiler.



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Kirby

(Continued from page 20)

ty items) it became very evident that many consumers are interested in buying limited amounts rather than by the standard farm package.

Housewives buy 4 to 5 tomatoes; they turn down a 4-quart basket . . . little room in the apartment. That goes through the entire line of perishables . . . potatoes, peaches, melons, sweet corn, and others. Checking in a supermarket in Philadelphia in early March, I noted that consumers were buying 4 to 5 spears of asparagus, maybe one or two grapefruit, and small cans of vegetables. There were no bunch asparagus sales . . . and this was a market in an area with consumers in the upper income level.

NOT HARMFUL

County agricultural agent Ivan Crouse, Salem County, is telling dairymen that plastic is not harmful to cows.

Crouse supports his findings by tests conducted at the University of Wisconsin. On most farms these days there are bits of plastic, and some may be picked up and eaten by cattle. Tests at the University showed that the strips of plastic went through the digestive system in about five days, requiring twice as long as undigested hay of the same size.

While plastic is not recommended as a steady diet, appetites remained good, and digestion was normal even in the presence of the polypropylene plastic!

THINNING PEACHES

Peach growers have three choices in thinning fruit this year. There is the mechanical thinner, which shakes the weak fruit from the tree; there is the chemical thinner which many favor; and there is the hand method. All three methods will be used in New Jersey this year.

The mechanical thinner has had a good record where tried, but on a limited scale. Chemical thinning has an excellent record. One criticism is that the chemical application lacks the 8 to 10-inch spacing recommended for hand thinning. But tests conducted in 1967 and other years indicate that spacing, while important, may not be as important as originally thought.

Hand thinning is still preferred by many. It appears to be much more costly than either mechanical shaking or chemical treatment. The mechanical thinner gets about all of the weak fruit that will eventually not make the grade; the chemical treatment may remove some peaches that might otherwise make the grade; the hand picking, in addition to being costly, often results in still leaving too many fruits on the tree.



It's not too late

Banvel® herbicide can be sprayed profitably even when field corn is 38 inches tall.

A pigweed every 5 inches can cut your yields 25%. Spray Banvel over the top of corn plants. The sooner you spray the more profit you'll make. Get cleaner harvests too.

Banvel gets the broadleaf weeds 2,4-D misses. Every major broadleaf weed likely to cause trouble can be controlled. Weeds as tough as Canada thistle, pigweeds, ragweeds, smartweeds, velvetleaf, lambsquarter, spurge, and the other tough ones. Order economical Banvel to save, time, labor, moisture and soil nutrients. Avoid tangling and damage to equipment at harvest. Boost your yields and get bonus profits.

Banvel does not make corn brittle, neither has it been known to irritate human skin.

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THE GROWING WORLD OF VELSICOL

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RENTING BEES

Joseph D. Stewart, bee specialist at the College of Agriculture, comes up with some suggestions on what to look for in renting bees for pollination.

Mr. Stewart places emphasis on having colonies that are headed by productive queens; all colonies free of American foulbrood; managed to prevent swarming; and that there should be sufficient food stores in each colony to maintain brood rearing and field forces.

A substandard colony is one where the total amount of brood . . . when eggs, larvae and pupae are added . . . should be sufficient to occupy all the comb in three-standard, full-depth frames representing at least 800 square inches.

MORE BARLEY

New Jersey farmers plan to grow more barley and soybeans this season than last, but intend to reduce their acreage of other major field crops, according to the New Jersey Crop Reporting Service.

Present indications of "prospective plantings" are for 20 percent more barley and 10 percent more soybeans than last year. Increased plantings of a special type of barley used for malting (which brings a premium price) will bring plantings to 64,000 acres compared with 38,000 acres last year. Soybean acreage is expected to total 44,000 this year, compared with 40,000 acres last year.

TOP SOYBEANS

The Adelphia soybean led all varieties in the 1967 contest conducted by the Agricultural College. Adelphia's yield was 57 bushels per acre, followed by Kent with 51 bushels. In third place was Custer with 37 bushels, and Clark was fourth with 23 bushels. All plots were under the supervision of Dr. John Anderson, Rutgers soybean breeder.

KEEP YOUR SUBSCRIPTION RENEWED
AMERICAN AGRICULTURIST

Doc Mettler Comments On:

BREEDING HORSES

HORSE TRAILERS are a familiar sight on the highways these spring days. Not too many years ago we were told that the automobile had replaced the horse. Now instead, we find that the automobile is used to move the horse from place to place so fast and easily that it is one more reason why there are more horses than ever. When I see a trailer on the road I wonder where it is going and why. Some are on their way to and from the track, and over weekends many are on their way to and from shows, trail rides, and gymkhanas. This time of year many are transporting mares to a stud farm to be bred.

Recent advances in the knowledge and understanding of artificial insemination has made it possible to breed a mare on a farm where there is no stallion available. However, due to the complexity of determining the heat period of the mare, and the fact that offspring of such matings are not eligible for registry in many breeds, most mares are still taken to the farm where the stallion is.

There are many mare owners who would like to raise a foal, but hesitate to have a mare bred because of doubts as to what must be done to prepare her for breeding. For the benefit of you who are in this group I shall discuss what is ordinarily done before a mare is bred.

Best Time

May is considered late for breeding a mare to produce a Standardbred or Thoroughbred race horse, but it is fine for other breeds. Where early foaling is not important, the advantage of having a mare foal on pasture is great. Figuring a 340-day gestation period (from date of breeding to foaling) makes May as early as you would want to breed if your mare was going to foal on pasture. Even with the race horses a pasture-born foal, properly cared for, wormed and fed, will often be as big as his winter-born mates by November weaning time.

If you are interested in a saddle horse, jumper or hunter, the pasture-born foal has all the advantages. It is best to breed mares prior to August 15, however, so you don't have foals born in the hot, fly-ridden time of summer. Investigation has shown that stallion semen is the strongest in May and June, and experience shows us that mares are more fertile during these months, too.

Mares can foal at any age from two up to the late twenties. However, I wouldn't advise breeding a mare under three, and a mare that has never foaled might not conceive once she reaches twelve or fourteen. I have seen mares that have produced their first foal at sixteen to eighteen years of age, but this is unusual.

Presuming that you have decided where you want to breed your mare, there are a few things the stallion owner will expect you to do. First, your mare should be strong, healthy, and free of defects that would pass on to the foal, such as poor conformation or mean disposition. Your mare should be free of parasites, so have a stool checked by your veterinarian and worm her if necessary. She should not be thin, but neither should she be too fat. Fat mares are said to be difficult to settle, and my own experience bears this out. If your mare has not had permanent tetanus toxoid injections, have your veterinarian take care of this, too. Some stud farms will ask you to have your mare immunized against equine influenza.

Cultures

Some stud owners will ask for a veterinary certificate that the mare is "clean" and normal. Others will specify that a "culture" be made to determine if the mare is free of bacterial infection of the uterus.

There is a great deal of misunderstanding about culturing mares. **A culture doesn't cure anything.** It only determines if infection is present. It is made by your veterinarian while the mare is in heat. He does this by placing an instrument called a speculum in the mare's vagina so that he can see the cervix, or mouth of the uterus. A sterile swab or wire loop is placed in the cervical opening and withdrawn. The tip of the swab, or the loop, is placed in a bottle containing material which bacteria can grow on. This culture material is then sent to a laboratory, where it is incubated. If any bacterial growth develops it is identified and checked to see which antibiotics it can be destroyed with.

(Continued on page 28)

The author is a practicing veterinarian at Copake Falls, New York

SOLID KAISER ALUMINUM ROOFING AND SIDING...

THE BIG WIDE MONEY SAVER:

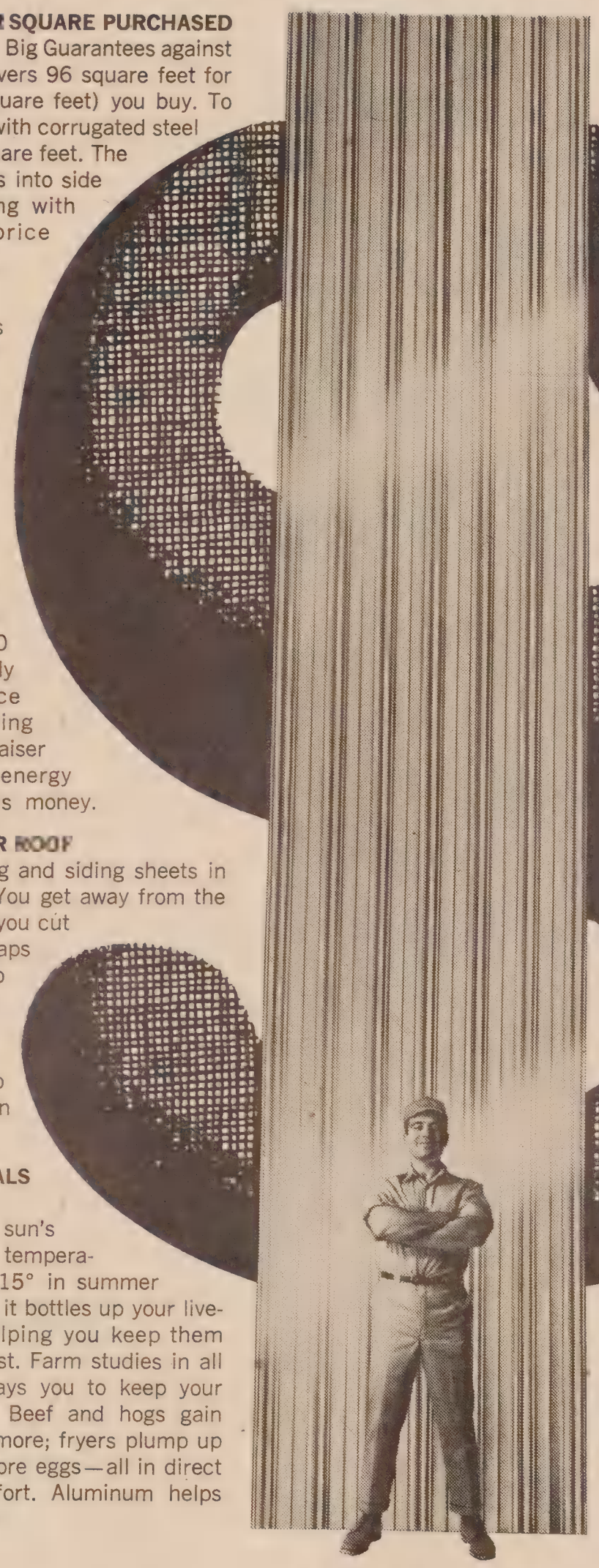
Compare aluminum with corrugated steel: Which is more expensive? If you say aluminum, chances are you're looking only at per-square price. You owe it to yourself to read how this misconception can cost you money when you build.

MORE COVERAGE PER SQUARE PURCHASED
Our Big Sheet with the Big Guarantees against hail and corrosion covers 96 square feet for every square (100 square feet) you buy. To cover this same area with corrugated steel you must buy 108 square feet. The rest of the metal goes into side and end laps...along with your per-square price "savings."

SAVE ON LABOR
Handling alone makes a big difference in your costs. A building 80 feet long with 24 foot rafters will require only 40 sheets of our 4'x24' aluminum. To do the same job with ordinary corrugated steel you will need 240 sheets of 2' wide material (160 sheets 8' and 80 sheets 9'). You'll really notice the difference when you start hoisting them into place. Use Kaiser Aluminum. You save energy and time. And time is money.

FEWER LAPS, TIGHTER ROOF
We can provide roofing and siding sheets in the length you need. You get away from the end lap problem, and you cut the number of side laps by 75% compared to old-fashioned corrugated. The fewer laps you have, the fewer chances to leak—so you'll save money in future repairs.

COMFORTABLE ANIMALS MAKE MORE MONEY
Aluminum reflects the sun's heat and lowers inside temperatures by as much as 15° in summer months. In wintertime, it bottles up your livestock's body heat, helping you keep them comfortable at less cost. Farm studies in all areas prove that it pays you to keep your livestock comfortable. Beef and hogs gain more; milk cows give more; fryers plump up faster; and hens lay more eggs—all in direct relation to their comfort. Aluminum helps keep them productive.



SOLID ALUMINUM, SOLID SAVINGS
Another big difference between solid Kaiser Aluminum roofing and even the best galvanized steel is just this: Our sheet is solid, not coated. When steel's galvanic coating wears off, it starts to rust. To protect steel requires repainting every few years. Solid aluminum can't rust. It protects without painting.

THE FIRST ROOFING SHEET WITH TWO BIG GUARANTEES

CORROSION GUARANTEE: Kaiser Aluminum roofing and siding is guaranteed not to leak from perforations caused by corrosion, provided Kaiser Aluminum accessories are used in installation, and roofing and siding are not in contact with dissimilar metals or the ground. No other damage covered. Diamond-Rib® guaranteed 30 years, Twin-Rib®* 20 years. Limited to replacement of roofing and siding only. Prorated after 10 years based on prices at time of adjustment. Guarantee application must be approved. Not transferable. Limited to farm or residence installations.

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The Big Wide Money Saver, Kaiser Aluminum roofing and siding, is available where you buy building materials and from your farm builder. Or write Kaiser Aluminum, Room 667, Kaiser Center, Oakland, California 94604.

rustfree aluminum

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KAISER ALUMINUM

Mettler

(Continued from page 27)

This report is returned to your veterinarian, and if he considers it a bacterial infection that can cause trouble he will treat the mare, and get a clean culture before she is sent to the stallion.

Cultures made when the mare is not in heat don't always mean too much, so often the mare is cultured at the breeding farm at the start of heat, and she is not bred until the clean report comes back. Where equipment for artificial insemination is used on the stud farm, mares that have not been cultured can be bred with no danger to the stallion or to other mares that would be bred to the stallion. For this reason I believe that artificial insemination on the farm where the stallion is located is a must if disease is to be controlled.

Caslick Operation

Mares that are infected and treated are often sutured. That is, the top part of the vulvar lips are sutured shut so that the mare can't "suck wind," which is drawing air into the vagina, which of course also draws in filth and infection. This is also known as the Caslick operation. The sutures are removed in a week, and the lips of the vulva stay grown together till cut or torn open at the time of foaling. Some sutured mares can be bred while still sutured, and others are opened to breed and sutured right up again.

Your veterinarian should be called to check any mare that is to be bred, whether she has to be cultured or not. The examination consists of a rectal exam to determine the condition of the ovaries and uterus, and an exam with the speculum ("spec") to look at the cervix and to check the vagina. At the time of this speculum examination the veterinarian can also determine whether the mare's vagina is open enough to admit the stallion's penis. Some virgin mares have to be opened with a speculum and scissors surgically. It is important that this be done far enough ahead of breeding so that the mare is no longer sore and won't tear. Years ago "opening" a mare meant introducing your hand into the mare's vagina and forcing a finger through the cervix. This is a great way to infect a clean mare. When the mare is in heat, and ready to be bred, the cervix doesn't need any human help to be opened.

If you have a stallion around or even a gelding that you can use as a "teaser," you can determine the heat cycle on your mare. When a mare in heat sees **and hears** a strange male horse she will come over to him, turn her rear quarters to him, squat, urinate, and give indication that she is in heat. It is best to have a rail fence or box stall door between the mare and the "teaser." Don't expect a mare to show heat to a male horse she sees all the time. Show her the teaser only every two days, and meanwhile keep him out of sight.

If you don't have a horse to use as a teaser you might be able to tell when your mare is in heat anyway if she is the type that shows strong heats. A veterinarian who is experienced in examining mares can often tell about when a mare is due to come in heat by the condition of the ovaries and the appearance of the cervix. This might mean examining the mare every six days or so for a month, however.

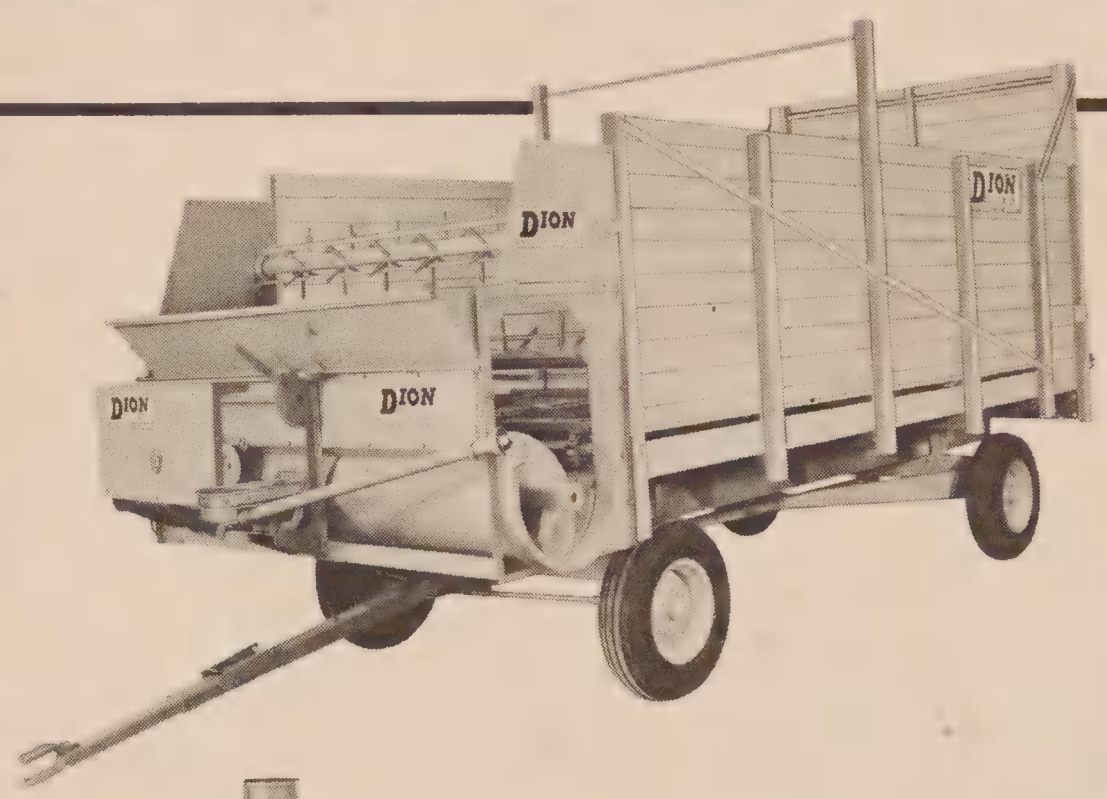
Now let's discuss a very important item. Examining mares is dangerous for the veterinarian. The most gentle mare might kick when examined if not properly restrained, and being kicked in the stomach by a mare can be fatal. Each veterinarian has a different way he wants mares restrained. Some use breeding hopples, some want a twitch, some want a foot picked up, or the mare in a stall with a half door to protect him. At any rate, be there to help him, and do exactly as he says. The horse that "never kicks" is like the gun that isn't loaded . . . they both can kill!

Mares' heats vary in interval and length. Most mares show heat every twenty-one days in the spring, and the heat usually lasts about six days. However, it is not uncommon for a mare to stay in heat for fifteen or more days, go out of heat, and return in heat twenty-one days from the first day of the last heat. Don't count the twenty-one days from the end of the heat, but from the first day. At a breeding farm mares are checked at heat for follicle size and condition of the follicle and cervix. Some mares will act as though in heat when exposed to strange horses, but on examination will prove to have no follicle. The follicle is the sack of fluid that forms on the ovary at the time of heat. The egg is in this sack; when the follicle ruptures ovulation has taken place.

There is no point in breeding a mare unless there is a ripe follicle on one ovary, and the cervix appears to be down and open. The ideal situation is to wait until you are sure that ovulation will take place in twenty-four hours and then breed the mare. However, mares being mares, forty-eight hours later the follicle may still be there, and again forty-eight hours later. On the other hand, if you wait too long she may ovulate and then it is too late to breed. I mention this only to explain why some mares that are bred only once conceive, and are the same every year, and others are bred several times. Theoretically, if hormones are given to cause the follicle to rupture a lot of repeat breeding can be avoided. So far my experience with the use of hormones on normal animals has not been encouraging.

(Continued on next page)

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If you have a mare that has just foaled you will be told that if she is bred on the ninth day after foaling she will conceive. Like everything else to do with mares, this is variable. Mares do have a short heat between six and sixteen days after foaling, and if they are in good health will conceive on this heat. Many owners prefer to wait till the next heat, which usually occurs twenty-one days after the first heat, or about thirty days after foaling. Leave this decision up to your veterinarian after he has examined the mare and everything is taken into consideration.

If you are lucky enough to establish a heat pattern on your mare you can tell exactly when to take her to the stallion. Otherwise, take her when you can and hope she will show heat soon after arriving. If you must travel a long distance it is probably better to leave her there a month after breeding so she can be checked as a non-return. Mares can be checked and pregnancy determined by a veterinarian in forty to forty-five days if you wish to leave her at a farm long enough for that.

I wish I could give you more information on artificial insemination as proposed to be done by one or two commercial organizations. However, although I have drawn semen and bred many mares with fresh semen, I have no experience with the use of stored or frozen semen used on individual mares. On the farm where freshly-drawn semen is used no problem exists, disease transmission is kept to a minimum, and mares can be bred when they need to be without the danger of wearing out or infecting a stallion. The two main problems I see in artificial insemination as proposed is the difficulty in detecting heats on lone mares, and the danger of inseminators being injured by poorly-restrained mares. I feel sure these problems will be overcome and in a few years A.I. for horses will be as routine as it is for cattle. It will be an interesting development to watch.

HORSE AI BY EASTERN

The Eastern Artificial Insemination Cooperative is undertaking a Spring 1968 Horse A. I. Field Trial demonstration.

The following New York technicians are involved:

Loren MacMillen of Deposit; Vaughan Sunderland, Spencer; Richard Downs, Franklin; Robert Jordan, Oneonta; Robert Leslie, Broadalbin; Don Sawyer, Guilderland Center; John Logan, Chester; Martin Moore, Ancramdale.

In Connecticut, two technicians are involved:

Laurence Harwood, Stafford Springs; Carroll Michener, Woodbury.

Breeding of mares will be done by these technicians during May and June . . . using semen from two Throughbred and three Quarter Horse stallions, as well as one Appaloosa and one pony.

FRUIT



Peach Fertilizer – Superior yields and quality of fruit from Elberta peach trees are possible with fertilizer mixtures developed and tested in 12 years of research by the Agricultural Experiment Station at The Pennsylvania State University.

Dr. Ritter and associates found that highest yields and best quality of peaches were produced with treatments using one-half pound of ammonium nitrate (33.5 percent N) per year of tree age, combined with yearly applications of 2.2 pounds of triple superphosphate (45 percent P) and one-half pound of muriate of potash (60 percent K) per tree.

The experiments revealed that nitrogen utilization was more efficient where its use was coupled with moderate to high rates of phosphorus and potassium than where coupled with low rates of phosphorus and potassium.

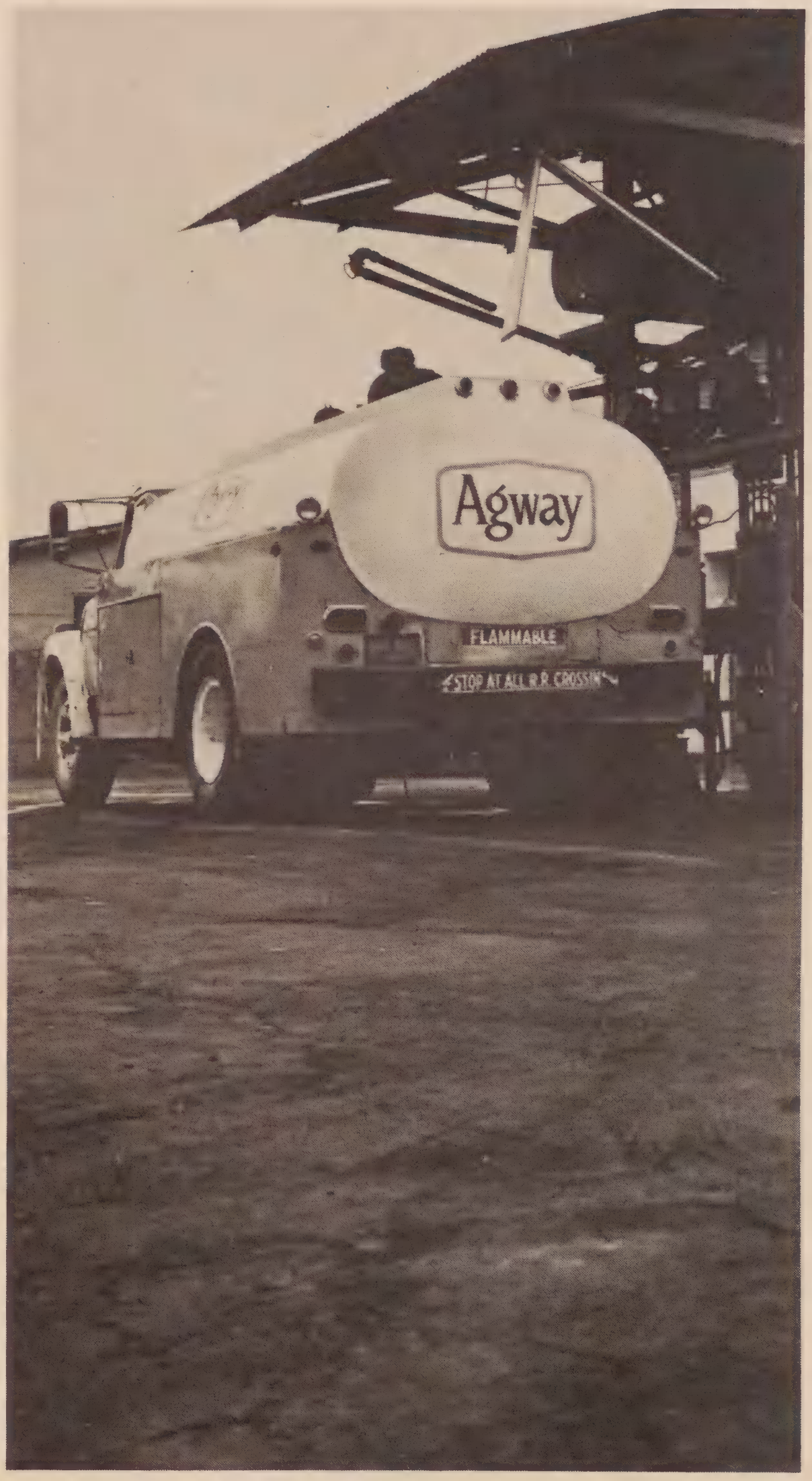
At present the superior fertilizer mixture is not manufactured in any of the commonly available grades. However, Dr. Ritter has developed a chart indicating the amount of fertilizer to use with the improved treatments, based upon the age of a peach tree. Copies of the chart are available free from C. Marshall Ritter, 4 Tyson Bldg., University Park, Pa., 16802.

The fertilizer treatments should start the year the tree is planted, Dr. Ritter advises. As a rule, the amounts of nitrogen, phosphorus, and potassium may need to be increased as the percentage of sand in a soil increases.

The fertilizer should be spread in a ring 18 inches wide, starting one foot from the trunk at time of planting. In succeeding years the 18-inch ring is moved outward under the outer edge of the limbs.



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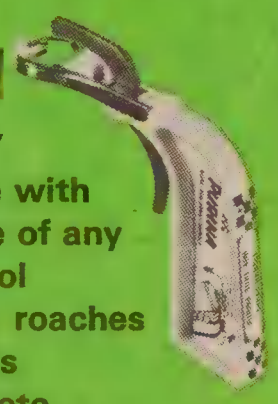
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Still a little undecided what to do for vacation this summer? We'd like to invite you to join our Pacific Northwest Tour for a glorious trip to some of the most thrilling places in North America. The dates are **July 27 to August 14,** and the following brief outline lists a few of the trip's highlights.

Historic **Salt Lake City** comes first; here we see the beautiful Tabernacle, homes of the pioneers, and travel a ways on the Old Mormon Trail.

We take a sightseeing tour of **Vancouver** and have lunch at Lady Alexandra Floating Restaurant. On our way to **Victoria,** we visit the Bastion, an old Hudson Bay Company fort. We will be thrilled with the beauty of famous Butchart Gardens and the many other places of interest in Victoria.

A tour of the **Olympic Peninsula** includes Lake Crescent, Moro, Hoh Rain Forest and Hurricane Ridge; then the Hood Canal floating bridge and Winslow Ferry take us to **Seattle.** Here, we tour the city and have free time for additional sightseeing or shopping. The following day we make our way up the slopes of majestic Mount Rainier for lunch at Paradise Inn.

Portland is our next destination. From here we drive along the beautiful Columbia River Highway, stopping at Multnomah Falls and Bonneville Dam, with lunch at Timberline Lodge on marvelous Mount Hood.

Crater Lake is one of America's most unusual phenomena — an actual sunken crater of prehistoric times filled with the bluest water imaginable. On the Rim Tour, the colors change with each curve of the road. Next we travel through the mountains at Grant's Pass with a stop at Oregon Caves National Monument.

On our way to **San Francisco,** we visit Redwoods State Park and drive through the heart of the Redwoods Empire. We also stop at the Italian Swiss Colony Winery at Asti and the Luther Burbank Memorial Gardens. We arrive in San Francisco by way of the Golden Gate Bridge.

No matter how many times you may have been to San Francisco, it's always a thrill to come back for still another visit. Sightseeing includes the magnificent view of the city and bay from Twin Peaks, Seal Rocks and the Cliff House, Lincoln Park, the Presidio, the Japanese Tea Garden in Golden Gate Park, with lunch at Fisherman's Wharf. There'll also be plenty of free time for you to ride the cable cars, visit Chinatown, Top of the Mark, and other places of particular interest to you.

Fill out the coupon today, and we will mail you the illustrated, day-by-day itinerary, giving full information about the cost of this marvelous vacation. On any American Agriculturist tour, your all-expense ticket covers everything, and your tour escort takes care of all details; there's nothing for you to do but relax and enjoy every single minute.

Other Tours

If you act **at once,** it is still possible to join our Caribbean Air/Sea Tour from **May 31 to June 16.** Our ship will be the deluxe passenger freighter Prinses Margriet of the Holland America Line, and our ports of call will be Curacao, Aurba, LaGuaira, and Trinidad. We'll also visit Tobago, Barbados, and Antigua before flying home.

Prompt action is also necessary if you want to go to **Scandinavia** with us from **June 5-26.** This wonderful tour takes us to Denmark, Sweden, and Norway while the sun is shining around the clock above the Arctic Circle.

On two identical **Alaskan Holidays (June 22-July 5 and August 11-24),** we will spend a day in Victoria before our cruise of the beautiful Inside Passage to Juneau. From there we go into the interior of Alaska, visiting Skagway, Fairbanks, Mt. McKinley National Park, and Anchorage.

Come on along with us!

Gordon Conklin, Editor
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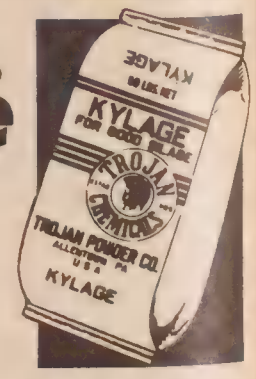


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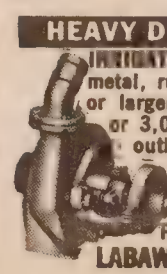
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by Robert Clingan

GOD'S GRACE

The days were days of cruelty and terror. Men were hanged for stealing a loaf of bread. Years later historians would describe this period that was short on culture and long on violence as the "Dark Ages."

In this era of darkness a young man in England was caught stealing a sheep. He could have forfeited his life; instead, his community chose "to teach these sheep thieves a lesson." While some neighbors held his thrashing arms and legs, others heated up a branding iron and when it was glowing red pressed it into the flesh of the struggling thief. When the vigilantes had finished their grisly work, the accused bore a scar on his forehead that read "S-T," meaning "Sheep Thief."

After it was over the young man talked with a wise old man, asking whether the best course would be to leave the community. The scar could never be erased or covered up, but in another community people might not know what it meant or how he had earned it.

The wise old man said, "It would be much better to stay where you are and live it down. It will take courage, but it is the best way; you will respect yourself more. The grace of God is a tremendous power, and you'll be surprised at what it can do in your life and in the life of the community where you live."

With a great deal of misgiving, and more courage than confidence, the young man accepted the advice. He continued to live in the community where he had been born, and where he had made the tragic mistake that led to his disfigurement.

Years later a stranger visited that community. He said to a small boy, "I saw a strange-looking man in your town. He had a scar on his forehead in the shape of the letters "S" and "T." What does it mean?"

The child answered, "I don't know what it means. Perhaps it means saint."

The grace of God had done its work in the life of both the wrongdoer and his community!

Dates to Remember

May 1 - Annual meeting New Jersey Agricultural Society, Cedar Garden Restaurant, Mercerville, N.J.

May 1 - "State Day" Program, sponsored by Delaware Home Economics Extension Council, Capital Grange, Dover.

May 4 - 20th annual "A" Day, Delaware Valley College, Route 202, Doylestown, Pa.

May 4 - New Jersey Hereford Association Annual Spring Sale of Feeder Calf and Commercial Beef Cattle, Cooperative Livestock Market, Hackettstown, N.J.

May 8 - State FFA Convention, University of Delaware Campus, Georgetown.

May 11 - New York Beef Cattlemen's Association Feeder and Breeding Sale, Chatham Area Auction, Chatham, N. Y.

May 11 - 4th Statewide 4-H Club Market Field Day and Sale, sponsored by New Hampshire Sheep Breeders' Association, Whipporwill Farm, Marlboro, N.H.

May 11 - New York State Holstein Calf Sale, Syracuse, N.Y.

May 12-15 - New York State Milk Distributors Annual Convention, Nevele Country Club, Ellenville, N.Y.

May 14 - Delmarva Poultry Booster Dinner, Youth & Civic Center, Salisbury, Maryland.

May 18 - Mohawk Valley Beef Sales, Inc., Westernville, N.Y.

May 18 - National Antiques Show, Madison Square Garden, New York City.

May 19 - Rural Life Sunday.

May 19 - New York State Dairy Goat Breeders' Association Buck Show, Fair Grounds, Schaghticoke, N.Y.

May 19-26 - Soil Stewardship Week.

May 20 - Hess's International Flower Show, Allentown, Pa.

May 25 - 4-H State Day, Vermont.

May 25 - Maine Dairy Day, Lewiston, Maine.

May 26-29 - American Feed Manufacturers' Association annual meeting, Sheraton-Park Hotel, Washington, D.C.

May 27 - Wool Market, Penn Yan, N.Y.

June 1-9 - Boston Common Dairy Festival, Boston, Massachusetts.

June 3 - Finger Lakes Wool Market, Gouverneur, N.Y.

June 4-6 - Pennsylvania Poultry Federation Annual Conference, Pennsylvania State University, State College, Pa. Banquet, June 5 at Nittany Inn.

June 5 - Finger Lakes Wool Market, Auburn, N.Y.

June 6-7 - Eastern New York Wool Market, Schaghticoke, N.Y.

June 11-12 - Second Biennial Frontiers in Food Science Symposium, Cornell's Agricultural Experiment Station, Geneva, N.Y.

June 11-15 - National Apple Institute 33rd annual meeting, Claremont Hotel, Berkeley, Cal.

June 12-13 - Southern Tier Wool Market, New Berlin, N.Y.

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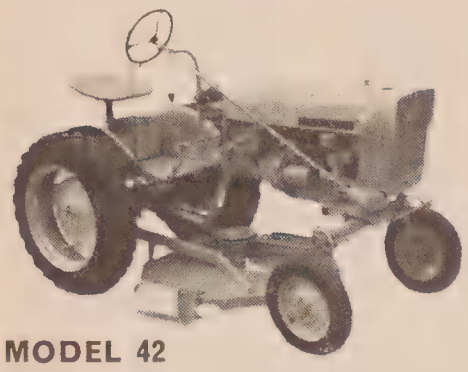
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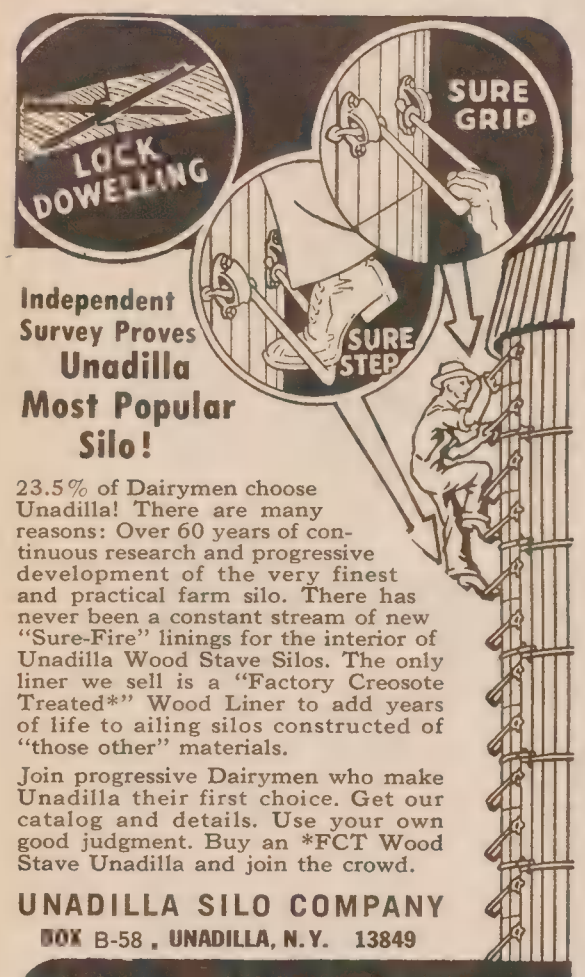
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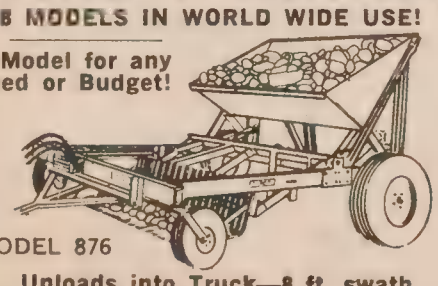
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Dollar Guide

For The Northeast Farmer

POSITIVE LETTER APPROACH to milk promotion gives indication that 70-75 percent of Order 2 dairymen will support milk promotion at the level of 3 cents per cwt.

NEW ENGLAND Price Forecast Committee predicts increase of 37 cents per cwt. over '67 for dairymen under the Massachusetts-Rhode Island-New Hampshire Federal Marketing Order. Prices predicted are: May $5.10; June $5.05; July $5.65; August $6.05; September $6.15; October $6.15; November $6.10; December $5.80.

YOU MAY FIND that new seedings of grass and legumes suffered during winter. Reasons include: a severe winter, damage last summer from alfalfa weevil, an unusual amount of volunteer oats last fall. Check your meadows and decide best way to meet the situation.

SUPPORT PRICE for manufactured milk for the marketing year beginning April 1 was raised from $4.00 per cwt. to $4.28 for 3.7% milk, equivalent to $4.12 for 3.5% milk.

CLASS I MILK PRICES until April 1969 are announced by USDA as follows: Massachusetts, Rhode Island, New Hampshire $6.67; New York-New Jersey $6.39; Connecticut $7.07; Delaware Valley $6.93.

POULTRY SURVEY COMMITTEE predicts a drop of 16% in 1968 turkey crop, and a November price averaging 21 to 22 cents per lb., one to two cents above the '67 price.

They estimated egg prices for the 12 months beginning April 1 to be about 35 cents a dozen, 5 cents above same period last year; production costs likely to be up 1 cent per dozen; hatch of egg-type chicks expected to be 12% below year ago January to June, and 8% above July to December.

EGGS in liquid or frozen form must be pasteurized to legally go into New York City after July 1, 1968.

SUTAN has just been cleared for use on nutsedge in corn. Cornell herbicide specialists recommend substitution of Sutan for EPTC in the previous recommendations of atrazine plus EPTC. With Sutan, corn can be planted same days as material is applied, unlike EPTC where corn planting was delayed 7 days after herbicide incorporation into the soil.

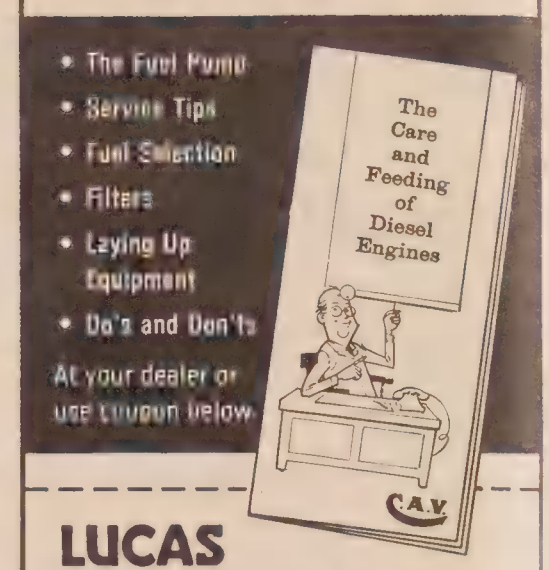
UREA can be added to corn silage by a device mounted on the chopper, making it more convenient with silage going into a bunker silo. Devices are also available that will meter urea into the silage stream at the blower. Ask your equipment dealer or farm supply store manager.

WHAT TO DO with old hens is a big problem. Should they be sold, kept a second year, given red lights, sent to the rendering plants, shipped to the undernourished countries, or put on the school lunch menu? The bird depreciation cost per dozen eggs produced has gone from 0 to 8 cents a dozen in the past twenty years, according to Professor Thomas Morrison of the University of Connecticut. Twenty years ago poultrymen received over $2 apiece for brown egg-laying hens; today they frequently get less than 40 cents for a bird of the same size.

SECRETARY FREEMAN REPORTS that 1,500,359 U. S. farms have signed to participate in the 1968 Feed Grain Program. This is a record. Last year number of farms was 1,308,000. Farms in wheat program total 842,134, representing 85.4% of the national wheat allotment of 59,300,000 acres.

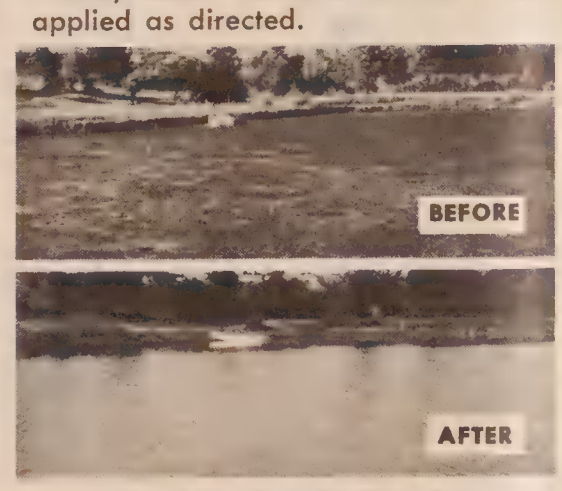
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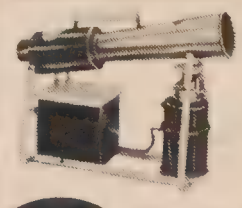


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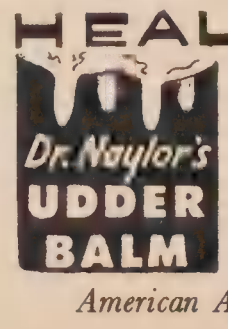


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Roy Phillips operates a de-leafer that makes easier the mechanical brussels sprouts harvest to follow.



The harvester in foreground cuts de-leafed "sprouts" and elevates them to bulk bin in background . . . which will in turn dump mechanically into a truck.

SPROUTS SPECIALISTS

by J. Robert Cudworth

FIVE years ago, the James Phillips & Sons Farm had camp space for 120 people at harvest time. Today, this Wayne County farm at Williamson, New York, has only one full-time man besides family labor of James, father, and Ernest and Roy, sons. Yet production has tripled at this farm, which specializes in snap beans and brussels sprouts.

The change has been made for several reasons . . . problems of getting dependable labor, too much government regulation, and the constant goal to become better producers.

Brussels sprouts are a somewhat specialized crop to Western New York, but the crop was attractive to the Phillips enterprise because it seemed to lend itself well to mechanization. So some six years ago they switched from production of broccoli. For each of the past two years they have grown 200 acres of brussels sprouts. They also grow 200 acres of wheat, and some 550 acres of snap beans. The brussels sprouts are contracted by Birdseye for their plant at Fulton, where they are freeze-packed.

Much of the Phillips' brussels sprouts mechanization has come from their own developments. Two examples are a harvester-elevator and a de-leafer.

Ernest Phillips points out that in the first year of brussels sprouts a lima bean harvester was used. It cut two rows of sprouts at a time, put them on the ground, and the sprouts were picked up by hand. For the past five years, however, a single-row harvester has been used, which was developed by Ernest and Roy from a beet vine harvester.

At first the harvester dumped into a pallet box. Now it has been refined so that an attached elevator dumps directly into a bulk bin; the bin empties into a truck or wagon. Ernest says he can cover about 10 acres a day with the harvester.

With brussels sprouts the entire stalk is cut and trucked to the processor, who cuts off the sprouts and sorts out the trimmings. Actually, with this method the farmer gets paid for about one-third of the tonnage he trucks. There is interest in doing this trimming in the field . . . as it is done in California . . . but thus far the cost of the mechanical strippers has not seemed worthwhile.

About a month before harvest it is necessary to go through the fields and break off the top of the stalk at a terminal joint. This allows the plant to give all its energy to sprouts up and down the stalk, and permits the less-mature sprouts at the top of the stalk to catch up with those near the bottom.

Just before harvesting, a de-leafing machine goes through the fields to cut off leaves so that only the stalk and sprouts remain. The de-leafer, which handles several plants at a time, was developed and built by Roy Phillips.

Harvest time of brussels sprouts is not as critical as with some other crops, so sometimes the harvest can be worked into the time that's available. Usual harvest time in this Lake Ontario area, however, is September 25 to early November.

Long Growing Season

Brussels sprouts require a longer growing season than their cousin, the cabbage. Plants transplanted June 10 will be ready for harvest on October 1. The Phillips farm grows most of its own plants, with the Jade Cross hybrid, a Japanese-developed variety, used most in New York State. The price is high, however, so research is underway to develop new varieties.

Spacing between plants is extremely critical (24" is about right) and growers try to rotate so that a sprouts crop is not grown more than once every four years on the same ground. Pests that bother brussels sprouts are club root, aphis, diamondback moth, and a fungus rot.

Club root can be chemically controlled, and a systemic insecticide, banded with fertilizer at planting time, will control aphis. The diamondback moth, believed to have come in with plants from the South, bores into the sprout, and the worm that develops leaves a hole. At first this pest was difficult to control, but a change of chemical seems to offer good control. The fungus rot, which has reduced some yields by 24 to 30 percent, is a problem to lick, but systemic chemicals coming along look promising.

"Our emphasis on equipment has paid off in helping us concentrate on becoming better producers," points out Ernest Phillips, "and we are willing to leave the processing and price-setting to others. We are certainly satisfied with our processor, and much prefer operating by the law of supply and demand . . . without government interference and artificial rigging.

"In looking back at our past experience, we can observe that farmers, like most businessmen, don't 'rock their own boat.' It was only when controls, political activity, or other interference came along that we found it necessary to change our operating methods and depend on machine power instead of manpower."



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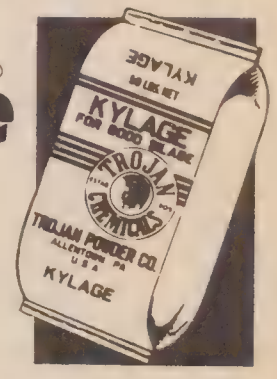


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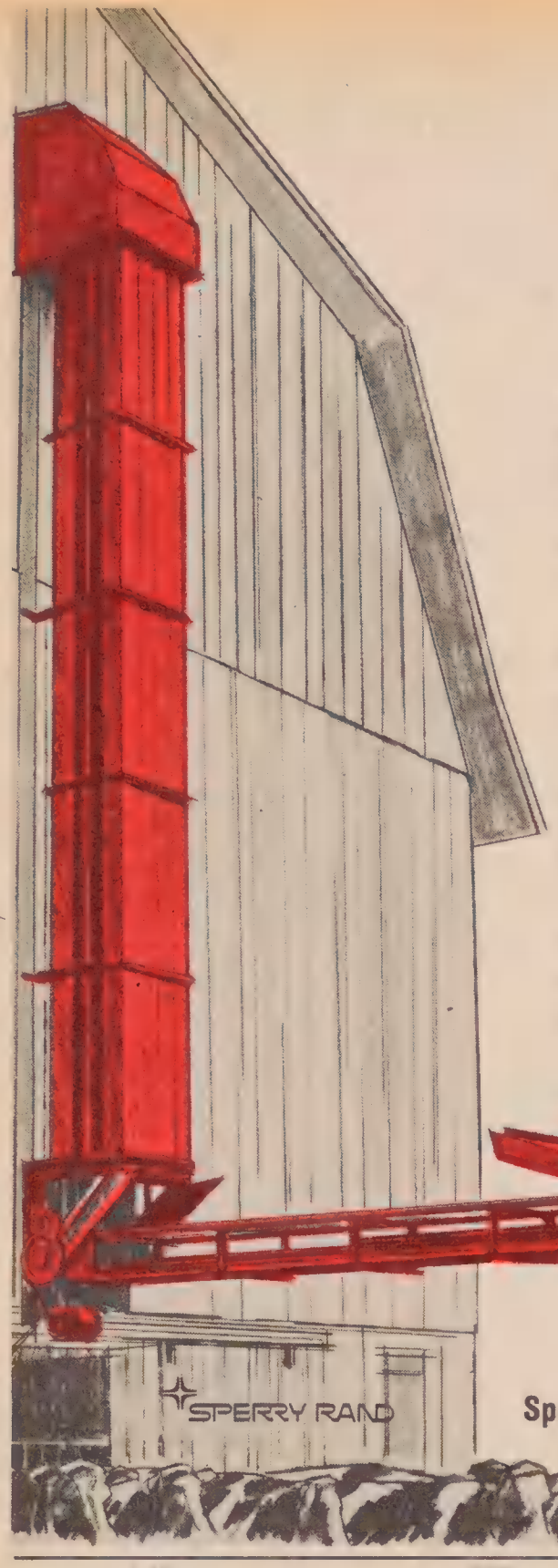
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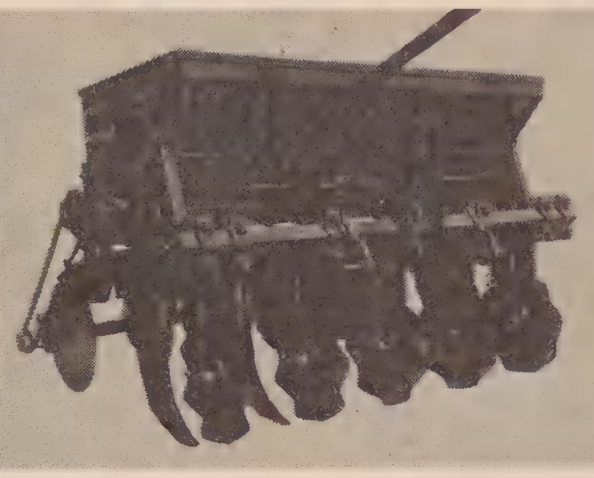
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The following custom rates for the Northeast come courtesy of Doane's Agricultural Service, St. Louis, Missouri.

PLOWING AND CULTIVATING

Job	Basis of charge	Northeast
Plowing		
moldboard plow	acre	$4.60
Disking		
tandem	acre	2.80
offset	acre	2.55
Harrowing		
spring tooth	acre	2.00
Cultivating		
sweep cultivator	acre	2.35
rotary hoe	acre	1.40
weeder	acre	1.75

PLANTING, DRILLING AND SPRAYING

Job	Basis of charge	Northeast
Corn planting		
with fertilizer	acre	$2.95
without fertilizer	acre	2.50
Drilling small grain	acre	2.30
Planting soybeans	acre	2.30
Planting potatoes	acre	5.30
Seeding alfalfa, clover, etc.	acre	2.50
Airplane, seeding legumes	acre	1.50
Spraying, average cost all, (no materials)	acre	2.20
Spraying weeds with 2,4-D (including material)	acre	2.80
Spraying buildings, (including material) with insecticide	hour	8.00
Spraying cattle, (no material)	head	.40

HARVESTING

Job	Basis of charge	Northeast
Corn picking	acre	$ 8.00
Corn combining	acre	10.80
Combining		
small grain	acre	7.50
soybeans	acre	8.50
seed crops, alfalfa, etc.	acre	8.00
dry beans, peas	acre	11.00
Harvesting sugar beets	ton	2.50
Thinning beets — mech.	acre	4.60
Dig potatoes	ton	3.80

HAY AND SILAGE MAKING

Job	Basis of charge	Northeast
Field chop silage		
chopper and blower with:		
1 man, 2 wagons, 1 tractor	hour	$14.00
2 men, 2 wagons, 2 tractors	hour	16.00
2–4 men, trucks, 2 tractors	hour	21.00
Silo filling		
upright	ton	2.25
trench	ton	2.25
into wagons only	hour	8.00
Mowing hay	acre	2.30
SP windrower	acre	3.70
Raking hay	acre	1.90
Crushing or conditioning hay	acre	2.50
Pickup baling		
twine	bale	.12
wire	bale	.16
Bale loader or pull wagon	bale	.10
Haul bales to barn and store	bale	.09
Haying, cut, rake, bale, store	bale	.32

MISCELLANEOUS

Job	Basis of charge	Northeast
Spreading fertiliser, (no material)		
bulk dry	acre	$1.35

(Continued on page 35)

Shaver
HYDRAULIC
POST DRIVER
Makes Fencing A Breeze . . . NOT a Back-Breaking CHORE



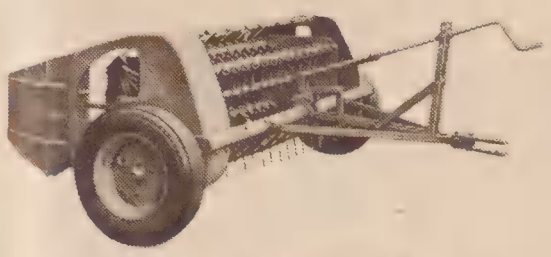
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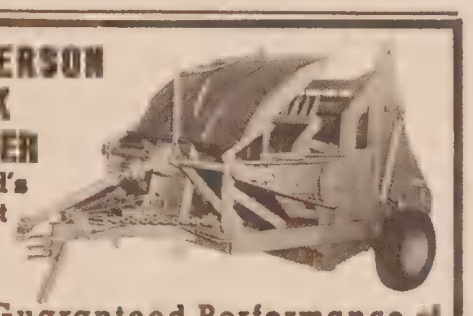
Fluffs up wet windrows, caught by rain before baling, to speed drying and eliminate moldy bales. The Nicholson is the only tedder that can do this. Gentle action of tines does not damage leaves or stems. Handles up to 8 ft. wide swath —covers up to 5 acres per hour.

New Features: High Tensile Tubular Rake Bars run in sealed ball bearings for high speed operation. Adjustable deflectors keep hay in windrows. All moving parts, including chains, fully shielded from crop. Patented double coil spring tines work perfectly on rough or stony ground. Easy adjustment.

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(Continued from page 34)

liquid	acre	1.65
sidedressing	acre	1.85
airplane	acre	2.00
Grinding feed	cwt.	.20
Mixing feed	cwt.	.13
Bulldozing	hour	12.75
Machine tiling, no tile	rod	2.30
Trenching	foot	.45
Cleaning septic tanks	job	25.00
Sawing wood, chain saw	hour	4.00
Boring post holes	hole	.30
Brush clearing	acre	22.00

RENTAL RATES

Job	Basis of charge	Northeast
Truck		
1 ton or smaller	hour	$2.90
1½ ton or larger	hour	4.20
Tractors, wheel-type		
large — 4 bottom or more	hour	5.00
medium — 3 bottom	hour	4.40
small — 2 bottom	hour	3.25
Tractor and loader	hour	4.60
Fertilizer spreader	acre	.95
Self-propelled combine	hour	9.90
Hay conditioner	acre	1.80
Stalk shredder, pto	acre	3.00

Is your tractor JUST STALLING AROUND?

by Wes Thomas

IF YOUR tractor engine operates normally most of the time, but occasionally stalls or runs irregularly, the cause is often difficult to locate. When the one possible source of trouble is located and corrected, it's difficult to tell if the trouble is really fixed, or if it will show up again. Come to find out, several deficiencies working in combination may be causing the irregular operation.

Usually, when attempting to locate and correct this type of situation, the best approach is a systematic and careful check of the things which affect engine fuel, compression, and ignition:

Thermostat . . . Engine coolant temperature must be in normal operating range. If the temperature does not come up to normal after the engine has had adequate time to warm up, check for a defective or absent thermostat.

Fuel filter . . . Clogged fuel filter may cause intermittent stoppage of fuel flow to engine. Follow instructions in owner's manual on cleaning the fuel filter. On diesel engines, it's especially important to follow carefully the recommendations for bleeding air from the fuel system after it is opened.

Fuel-strainer screen . . . This screen can also be the cause of fuel-flow stoppage. In many cases, this screen is relatively small so that only a few particles need to accumulate to significantly affect the amount of fuel that gets through.

Clogged fuel line . . . Water, dirt, or air in the fuel line itself can also prevent fuel flow. Follow instructions in owner's manual on how to open fuel line for draining or bleeding of air.

Diesel injectors . . . Dirty or faulty diesel injectors prevent correct amount of fuel being properly introduced into the cylinder. In most cases, the injector can be removed and another unit substituted for it. Repair of the injector itself is usually a job for your dealer's serviceman.

Carburetor . . . Improper carburetor adjustment on spark-ignition engines prevents the correct amount and proportion of air-fuel mixture from reaching the engine. In most cases, the carburetor can be adjusted for satisfactory operation by following the sequence of steps explained in the owner's manual.

Check the points . . . Distributor points must be smooth and properly spaced. Points that are only slightly roughened can often be dressed with a point file. Points that are badly pitted should be replaced, and a new condenser installed at the same time.

Spark plugs . . . Electrodes must be clean and properly adjusted. After the plug is cleaned, the electrodes should be filed flat and then adjusted to the proper gap. Use a wire gap gauge rather than a flat leaf gauge normally used to check valve clearance.

Heat control . . . Manifold heat control must respond to engine temperature changes. It's designed so that when the engine is cold, heat from the exhaust manifold helps heat the intake manifold to ensure complete vaporization of the fuel. Then as the engine warms, the valve diverts the exhaust gases directly into the exhaust manifold to prevent overheating of the intake manifold. Make sure the shaft can turn freely because relatively low forces are produced by the actuator in response to temperature changes . . . so only a little "stickiness" will prevent necessary response.



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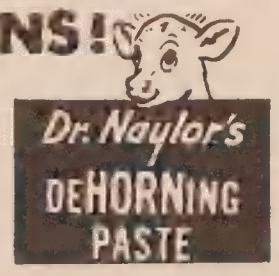
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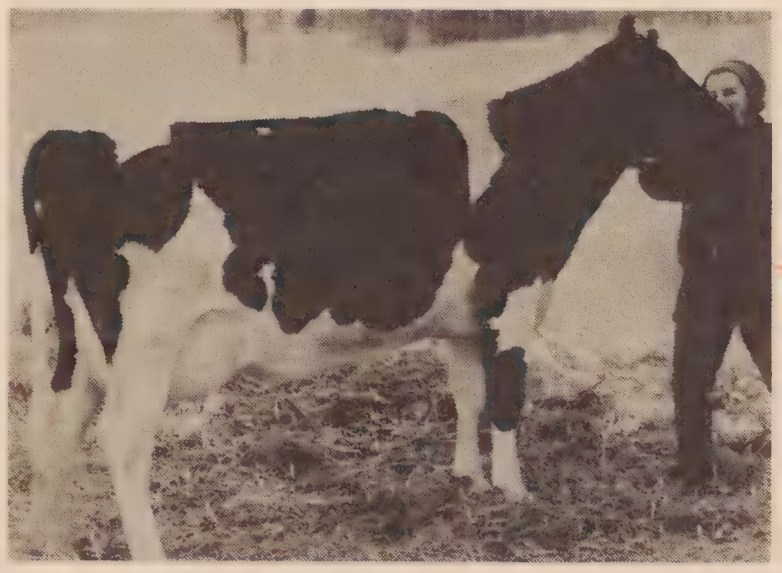
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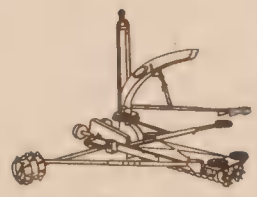
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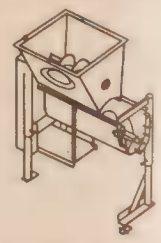
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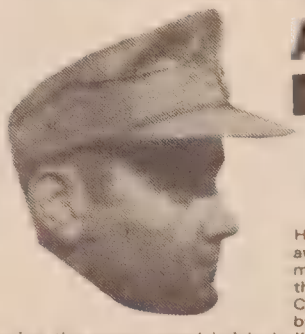
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STRAWBERRY PLANTS: Certified, Sparkle, Midway, Surecrop, Empire, Fairfax, Catskill, Robinson. $4.50 per hundred prepaid. Braman Bros., 1861 Harris Road, Penfield, New York 14526.

CATSKILL STRAWBERRY PLANTS, grown from virus free stock, state inspected. 25—$2.00; 50—$3.75; 100—$5.00; 200—$9.00; 300—$13.00; 500—$16.00; 1000—$26.00 postpaid. Glenn Thompson, Johnson, Vermont 05656.

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Here at last is the long-awaited 'Afrika' lightweight model (in cotton poplin) of the great German Forage Cap that took the nation by storm last winter—featuring the same rugged height-building 'stand up' front and anti-glare 'flying' visor. Just ■ the winterweight 'Jaeger' model's 3-position Weather Flaps protect from snow and cold, the 'Afrika' model's feather-light Flaps shield the neck from rain, sun and insects as with the old French 'Foreign Legion' caps. In the 'up' position (illust. above), the Flaps also serve as a sweatband of double-duty absorptiveness—avoiding the unsightly sweat stains that mar ordinary caps. Further, an insulating inner lining provides extraordinary coolness. ●Colors: light Desert Tan, dark Hunter Green ■ Black. All sizes for men, women, boys, girls. (The winterweight 'Jaeger' Cap is made of melton wool. Colors: Field Gray, Loden Green & Black.) ■ Price for both models is $5.95 for one cap, $4.95 for each additional cap ordered at same time. ■ For prompt delivery with full refund guarantee, write number of caps you want in each color and model—together with name-&-address. Add 45¢ shipping cost. (If charging, also give your Diners' or Am. Exp. Acct. No.) Dept. A-10 , SATORI, Mamaroneck, N.Y. 10543.

CATSKILL STRAWBERRY PLANTS, grown from Virus free stock. State inspected. Postpaid. 25—$2.00; 50—$3.75; 100—$5.00; 200—$9.00; 300—$13.00; 500—$16.00; 1000—$26.00. Glenn Thompson, Johnson, Vermont 05656.

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TRUCK ▪ FARM ▪ CAR—Used Tires—Excellent #1— 650x16 6 ply $8.50; 700x16 6 ply $10.00; 750x16 8 ply $12.00; 900x16 8 ply $15.00; 750x20 8 ply $15.00; 825x20 10 ply $20.00; 900x20 10 ply $20.00; 1000x20 12 ply $25.00. Pick-Up truck specials. New Major Brand sec. 670-15 6 ply nylon hwy. tubeless $17.75; 700-15 6 ply nylon hwy. T.T. $19.75; 650-16 6 ply nylon hwy. or all purpose $18.75; 700-16 6 ply nylon hwy. or all purpose $19.75; 750-16 6 ply nylon traction $29.50; 717.5 6 ply hwy. or traction $22.50; 817.5 6 ply nylon hwy. $27.50; 817.5 8 ply nylon all purpose traction $29.50. New 1st quality tires. 700-17 6 ply nylon traction tread $24.00; 700-17 8 ply nylon traction tread $27.50. Farm Tire Specialist—Airplane Conversion, New Truck—Tractor Tires also available. Write for complete list. Send check or money order. Sorry no C.O.D.'s. Gans Tire, 1001 Broadway, Chelsea, Mass. Tel: 889-2035. Area Code 617.

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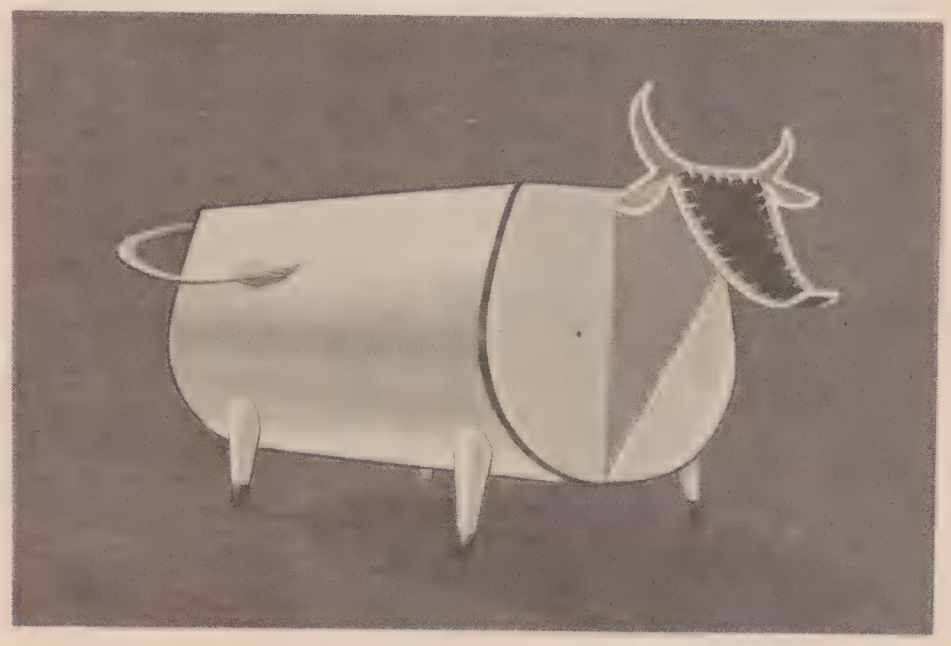
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(Continued on page 42)



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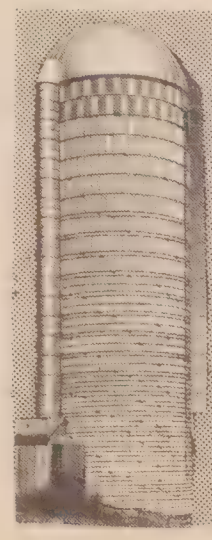
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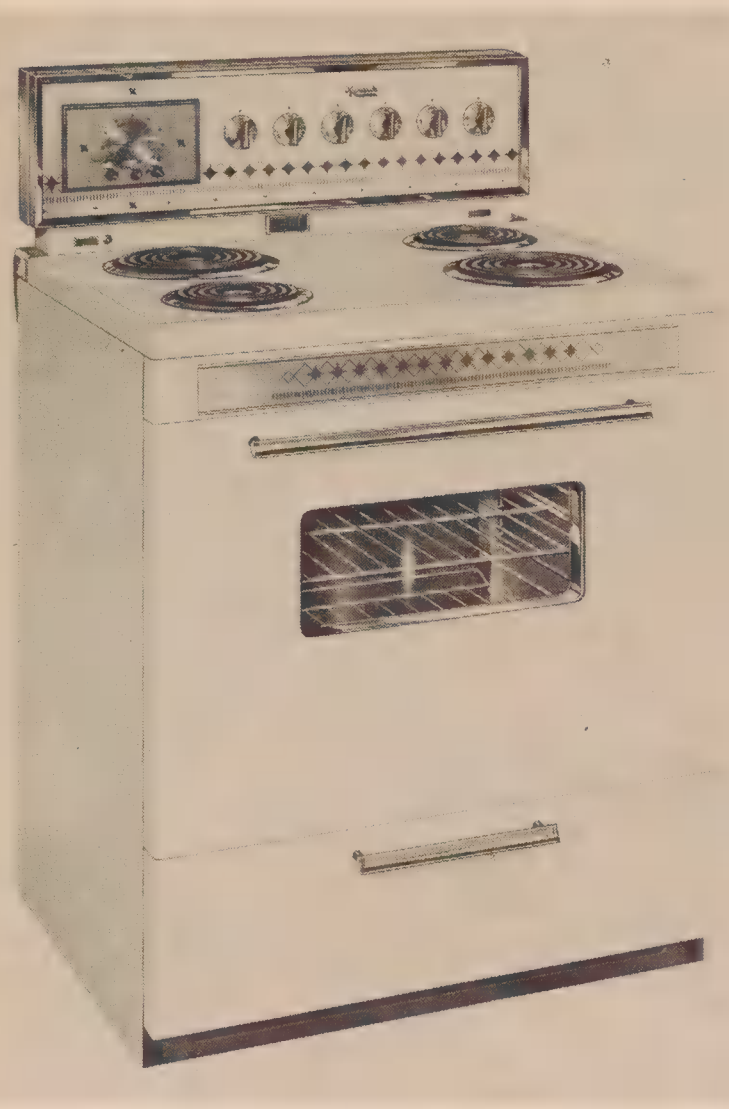
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DOUGHNUT



From MONARCH RANGE COMPANY.
"Jet-Fan" Convection Oven Electric Range by MONARCH.



From AGWAY, INC.
Chest Freezer with storage capacity of 385 pounds.

HAVE YOU thought that doughnuts were a thing of the past and that no one made them any more? We've a surprise for you! Doughnuts are featured in our 1968 American Agriculturist-New York State Grange baking contest, and Grangers from one end of the State to the other have been hunting out recipes and trying their hands at making this old-time favorite.

By this time, most Subordinate Granges have already held their bake-offs, and these winners are competing in the Pomona contests. The most exciting event will take place next fall when State Grange meets at Fredonia, New York, and the 53 county champions vie for top state honors and the prizes shown on these two pages, plus cash awards.

Everyone is always eager to learn what prizes will be awarded state winners, and we are sure you will be just as thrilled as we are with the ones being offered this year. Our sincere thanks and appreciation go to every company participating in the contest and helping to make it a success. Here are the prizes!

The top winners will receive **one** of the following grand prizes:

From **Agway, Inc.:** An 11 cu. ft. Chest Freezer with a storage capacity of 385 pounds.

From **Farmers and Traders Life Insurance Co.:** A 64-piece set (service for 8) of Syracuse China in "Wedding Ring" pattern.

From **General Aniline & Film Corporation:** An Anscomatic 326 Camera Kit, featuring instant cartridge-loading flashcube camera with electric eye for perfectly exposed pictures.

From **MONARCH Range Company** (Beaver Dam, Wisconsin): Their new "Jet-Fan" con-



From FARMERS AND TRADERS LIFE INSURANCE CO.: 64-piece set of Syracuse China.



From NATIONAL GRANGE MUTUAL INSURANCE CO.
3-piece Coffee Service with Tray.



From ONEIDA, LTD.
48-piece set of Community Silver with chest.



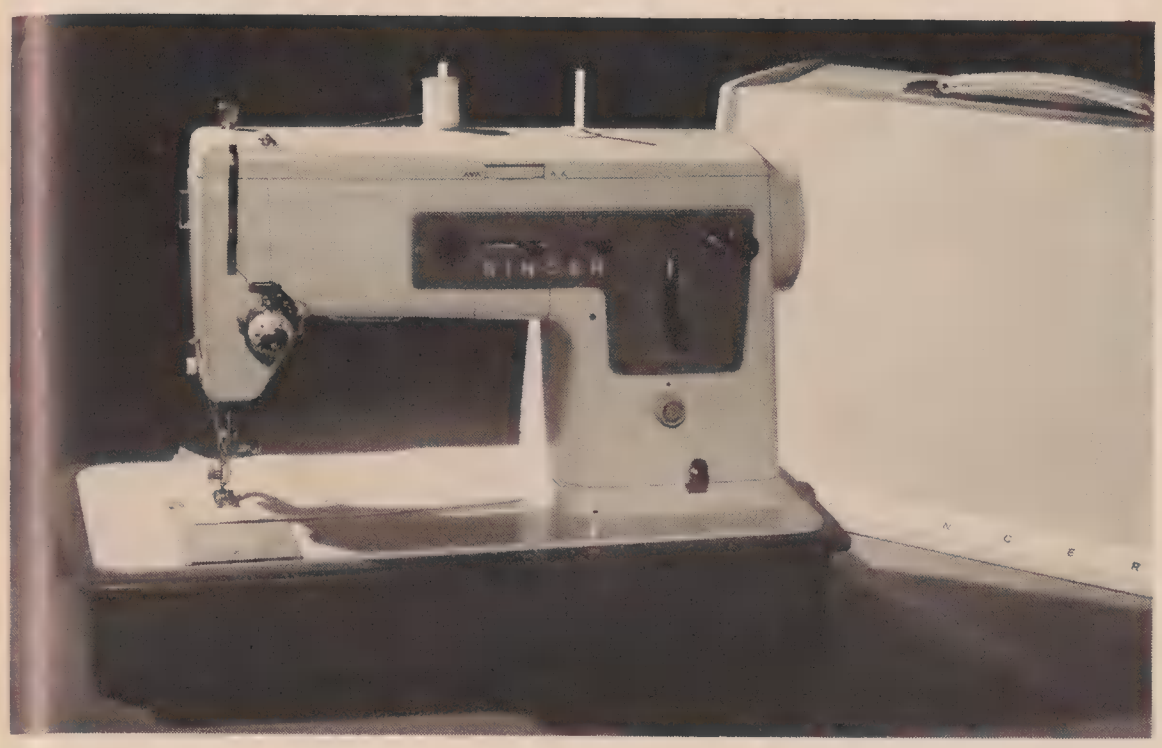
From GENERAL ANILINE & FILM CORP.
An Anscomatic 326 Camera Kit.



From SYRACUSE CHINA CORP.
16-piece set Carefree XL China.

CONTEST PRIZES!

by Augusta Chapman, Home Editor



From NEW YORK STATE GRANGE. Two grand prizes: A Singer Portable Sewing Machine and Singer Portable Television Set.



vection oven Electric Range which bakes and roasts at least 25% faster than ordinary ranges. Also featured is the new "Sta-Klean" oven with removable teflon-coated sides and backs, plus a lift-up cook top, lift-off oven door, and plug-in infinite controlled surface units.

From **National Grange Mutual Insurance Co.:** A 3-piece Coffee Service with 15-inch Round Tray of Community silverplate in "Park Lane" pattern.

From **New York State Grange:** Singer Portable Zig-Zag Sewing Machine with top loading bobbin. "On-off" switch on machine does away with foot pedal on floor.

Singer Portable Television Set has 75 square inches of viewing space and 82-channel reception.

From **Oneida Ltd. Silversmiths:** A 48-piece set (service for 8) of Community Silver in "Silver Artistry" pattern, plus storage chest.

From **Syracuse China Corporation:** A 16-piece starter set of Carefree True China in their new "Harvest Gold" pattern.

Other prizes are as follows: To the No. 1 and No. 2 state winners — a Westinghouse Transistor Radio from **International Salt Company.**

To each of the 10 highest state winners, the following prizes:

From **Curtice-Burns, Inc.:** A case of Blue Boy vegetables in Curtice-Burns' "white plate" lined cans **and** a case of mixed products of Ritter Brand merchandise.

From **Dairymen's League Coop. Assn., Inc.:** A Cheddar Treasure Chest Dairylea Cheese Assortment.

From **International Milling Co., Inc.:** A 25-lb. bag of Robin Hood Flour.

From **International Salt Company:** 6 packages of Sterling Table Salt.

From **Revere Copper and Brass Incorporated:** A 1-quart Revere Ware Saucepan.

In addition to these equipment and grocery prizes, state winners will receive the following cash awards:

International Milling Co., Inc. will award a $25 U.S. Savings Bond to the No. 1 winner in the state contest. If Robin Hood flour was used in the winning entry, the award will be a $50 Savings Bond.

New York State Grange will again award $159 in entry prizes. Each of the 53 county winners taking part in the state contest will receive a $3 entry prize.

American Agriculturist will distribute $107 among the 25 top winners as follows: First prize, $20; second, $15; third, $11; fourth, $8; fifth, $6; sixth, $5; 7th through 10th, $3 each, and $2 each to winners 11th through 25th.

Keep watch for the list of county winners, which will be published as soon as we have all the names . . . and for the exciting story of the state contest to appear in our December issue.



From INTERNATIONAL MILLING CO., INC. 25-pound bag of Robin Hood Flour.

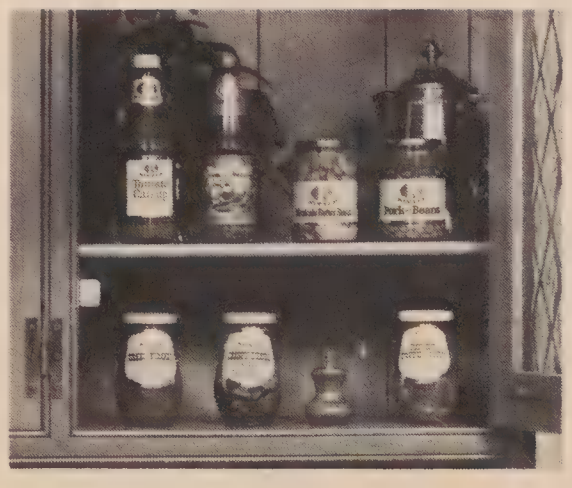


From DAIRYMEN'S LEAGUE COOP. ASSN. INC.
Treasure Chest Dairylea Cheese assortment.



From REVERE COPPER AND BRASS INC.
1-quart Revere Ware saucepan.





From CURTICE-BURNS, INC.
A case of Blue Boy Vegetables and a case of Ritter merchandise.



From INTERNATIONAL SALT CO. To State Winners No. 1 and No. 2: A Westinghouse Transistor Radio. To each of the 10 high winners: 6 packages Sterling Salt.

With Our ADVERTISERS



Farmers who grow their own livestock feed will be interested in New Holland's (division of Sperry Rand) newest version of the popular Model 351 Grinder-Mixer. New on the latest "351" are protective shields to prevent damage to sprockets, chains and gear boxes in rough, rutted or muddy lanes.

The Farm-Eze Belt Feeder, made by the Dubuque Stamping and Manufacturing Co., Dubuque, Iowa, carries feed in a way that doesn't separate it into coarses and fines. A 1.5 HP motor operates the belt (up to 165 feet long), and a one-fourth HP motor runs the "plow" that travels over the top of the belt and pushes silage off at chosen locations.

Different rations may be fed to any number of pens by the same belt, and this low-maintenance feeder gets feed to cattle quickly so they don't crowd around the silo end.

Distributed in the Northeast by New York Sealed Storage, Inc., P.O. Box 157, Auburn, New York 13021.

CLASSIFIED ADS

(Continued from page 39)

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ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 370, Ithaca, N.Y. 14851.

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WANTED TO BUY

WANTED. Used weaving loom. Any size. Mrs. M. Cullings, Scottsville, N. Y. 14546.

WANT SMALL IRRIGATION SYSTEM, Metal grain bin, windrower. Joe Beebe, R4, Towanda, Pa. 18848.

OLD CONVERTIBLE CAR 1912/41 wanted. Any condition. Pay $50 information if purchased. Box 722, Paterson, N.J. 201-525-9066.

WANTED TO RENT

WANTED TO RENT cash small farm, improved road, good house. Box 369-PS, Ithaca, New York 14850.



LET'S GROW SOME HERBS

by Lois O'Connor

DAIRY FARMERS TODAY would never take kindly to a practice followed by early Dutch settlers in York State who planted pastureland with chives to get chive-flavored milk. Times have changed!

Most of us prefer to get our chive flavor some other way. We plant chives, not in the pasture, but in the kitchen dooryard or bordering a walk where the purple blooms are as pretty as the slim, green stalks are tasty.

Chives, onions, garlic and parsley are such a part of everyday use that we forget they belong to that category of plants so many of us shy away from — they are all herbs! The confidence and ease with which we accept the well-known few should encourage us to experiment with herbs that may be less familiar. Why not venture on a herb-growing spree?

A small kitchen herb garden can be a means of whetting family appetites and of keeping meals interesting and attractive. If you are among those who do not have a "green thumb," herbs may become valued allies; while they don't thrive on careless treatment, they are less demanding than many types of plants.

It is now too late in the season to start herb plants indoors from seed, but most of the annuals and perennials for a beginning herb garden can be started outdoors as soon as there is little chance of frost and the soil has begun to warm. Or plants may be purchased from an herb farm or nursery, sometimes the most satisfactory way for a beginner.

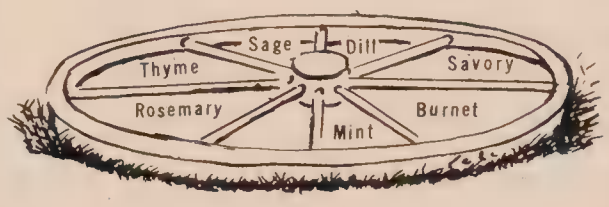
How To Get Started

The questions that must be answered about starting an herb garden are where, what, when and how. An herb garden does not need elaborate planning or design. It can be arranged in a small plot near the kitchen door where it is easy to quickly snip the fresh, pungent leaves for cooking. Elsewhere a heavy wagon wheel or ladder placed firmly on the ground makes an attractive pattern and forms boundaries within which to plant the various herbs.

Herbs may be placed in rows along a wall or walk, used as a vegetable garden border, or the shorter ones will grow happily tucked into rock garden niches. A small circular garden is often charming around a sun dial or bird bath. With the increasing popularity of container planting, low tubs, strawberry jars, handsome ceramic and redwood planters all make easily-cared for, portable herb gardens.

In planning your herb garden, give a thought to the average heights of the herbs to be used. It won't be sightly or convenient if 36-inch dill blocks the way in front of shorter sage or basil, or if a coarse plant hides the lacy loveliness of an herb like burnet.

Herbs are gregarious and like to get together with their neighbors unless restrained. A good method of keeping them separated is to use metal strips at least 8 inches wide. Press the strips into the ground, leaving about an inch above the surface. Metal stripping is flexible enough to curve as well as be used straight.



Which Ones To Plant

What to grow may be a confusing decision for a novice. Here are six herbs suggested as a starter — sweet marjoram, burnet, dill, mint, basil and sage. You may prefer to substitute or to add summer savory, borage, tarragon, thyme or rosemary, to name a few more. Burnet is a less well-known herb with a distinctive cucumber taste. I have put it in the first-choice group because so many who love cucumbers are unable to eat them, and burnet will impart to a salad this particular flavor with no ill effects from its enjoyment.

Of the first group, marjoram, sage and some mints are perennials, so they should be planted where you want them to remain for several years. Dill and burnet (sometimes called salad burnet) are annuals but self-sow from year to year, as does borage. Dill should be planted in early spring. It grows easily in moderately good soil but does not tolerate transplanting very well, as the roots are delicate. In colder climates, rosemary will not winter outside but can be brought in and makes a delightfully fragrant houseplant.

Remember that germination periods differ. Dill should germinate in from 10 to 15 days. Marjoram is slow, taking perhaps three weeks. Basil may come up in four or five days. Sage seed germinates easily, and a sage bed well established should be good for three to five years.

Only one of the herbs suggested cannot be grown from seed. Tarragon roots must be obtained from a friend's garden or from a nursery. Tarragon seed that you might see advertised is a Russian variety with unsatisfactory flavor.

Except for the mints which require moisture, most herbs grow well in a soil that is not too rich. Any soil suitable for vegetables will be satisfactory for herbs, although a "lean" soil will increase herb flavor. Drainage is important, too. No herb will flourish with constantly wet feet. For specific planting directions, follow those given on the seed packets.

The Brooklyn Botanic Garden publishes a **Handbook on Herbs #27** which is inexpensive ($1.00), practical, and has excellent photographs of the 68 herbs that are discussed. Uses for each herb are given and directions for planting and harvesting. For information or to order, write to **Brooklyn Botanic Garden, 1000 Washington Ave., Brooklyn, N.Y. 11225.**

Also, the New York State College of Agriculture at Cornell University has available a bulletin, **E841, Culinary Herbs.** A single copy is free to any New York State resident, and non-residents pay only 10 cents. Send your order to **Mailing Room, Bldg. 7 Research Park, Cornell University, Ithaca, N.Y. 14850.**

With the increasing popularity of herbs, many seed catalogs list a larger variety than formerly. Farm supply stores and supermarkets are displaying more herb seed packets, and more local nurseries are stocking seed plants. Following are listed a very few of the nurseries that specialize in herb plants and seeds:

Herb plants only — Hemlock Hill Herb Farm, Litchfield, Conn. 06759; Sunnybrook Farms 9448 Mayfield Rd., Chesterfield, Ohio 44026.

Herb seeds and plants — Greene Herb Gardens, Greene, Rhode Island 02826; The Herb Cottage, Washington Cathedral, Mt. St. Alban, Washington, D.C. 20016; Merry Gardens, 1 Simonton Rd., Camden, Maine 04843 (Catalog 25¢).

One last word — there are those who believe an herb garden isn't a proper one without a root of horseradish tucked off in some corner. Others require an elderberry bush because if you stand under it at midnight on Midsummer Night's Eve, you may see the King of the Elves go by — certainly proof that an herb garden can have some unusual compensations.

The AA Clothes Line

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ED EASTMAN'S PAGE

WHILE ROME BURNS

The other day I tried a little experiment, the results of which disturbed me. Without knowing which was which I drank some natural whole milk and some artificial milk. I like milk and have always used much of it and kept it on the table for our sons, but if my life had depended on it I could not have told which was the real milk and which was not.

I am not an alarmist, but whether you realize it or not American dairymen face a crisis in their business. The competition of oleo has nearly driven butter out of the market. Now it is imitation milk . . . and the substitutes are much cheaper. I think that whether or not milk goes the way of butter depends very much on the dairymen themselves.

The question is, then, what can we do? One answer is to advertise. Practically every big business has been built up and maintained by advertising. With more to offer in the way of quality than almost anything else, milk is advertised the least.

The American Dairy Association has done and is doing a good job in advertising milk. But it is only a drop in the bucket compared to what should be done and must be done. The Association is unable to do more because of the short-sightedness of many dairymen who are unwilling to pay for advertising.

Thus, we "fiddle while Rome burns."

If you want to do your part in support of your own business, write to the New York State branch of the American Dairy Association for full information. The address is 472 N. Salina Street, Syracuse, New York.

While you are writing make sure your cooperative knows how you feel about advertising milk.

CUT IT THREE TIMES

Among the many reasons why alfalfa should be grown on every farm where it will grow well is that its naturally-heavy yield can be greatly increased by more than one cutting.

The agronomists at the New York State College of Agriculture report that yields of alfalfa can be increased one-half ton per acre annually by cutting three times a year instead of two. Quality is also improved.

SMALL FARM SUCCESS

"We always enjoy your page in the American Agriculturist. We are interested in your question about whether the small or medium farmer can still survive.

My husband began farming by himself four-and-a-half years ago, and we now have fifty animals. We try to milk about twenty-five most of the time. He is certain that efficiency and not size is the answer in farming. He enjoys being with his animals, and he concentrates on getting them to produce well. Our present herd average is somewhat over 15,000 pounds of milk, but it has been as high as 17,000 pounds. He feels it is best to take good care of a few animals at a minimum of expense. He does not skimp when it comes to his cows, but neither does he spend money where it is unwarranted.

We rent our farm, and we have about 70 acres of usable land. We have about 20 acres in corn, and have two small fields (five acres) my husband uses for intense pasturing. In early fall he seeds these two fields with oats and rye and pastures the oats in the fall and rye in the spring. He then reseeds them with a sorghum-sudan hybrid for summer pasture and tries to pasture them twice.

He cuts his hay (25 acres) once and then pastures the hayfields. He makes extensive use of lime and fertilizer, feeling they are an investment rather than an expense. We have a fair amount of machinery, and my husband works with a neighbor who has a baler . . . and they own a sprayer jointly.

Our income does not permit us to live "high," but we certainly enjoy ourselves and the multitude of things we and our children have here which money cannot buy. Our basic goal is to pay off our loan while maintaining a good herd and improving our equipment, and we are doing this. In fact, we have paid ahead on our loan, and hope that we may be able to buy a farm before long.

A great deal depends on the individual. We feel that there are those who have been talked into "going big" who are not suited to that type of farming. Being small, we do not have to depend on outside help nor worry about where help is going to come from. And we can keep close track of our main resource, our animals.

My husband has done well, but it is not only because of the physical facilities he has. He has experience, knowledge, and desire, and these are the most important. He attends every meeting he can, reads all he can, and takes some time off, too. We certainly do feel it can be done." *— D. W. B. Connecticut*

IT'S IN OUR BLOOD

Standing now, knee deep in the glorious beauty of this northland of ours in the springtime, it is hard to believe that only a few short weeks ago the ground was covered with ice and snow, and blizzard winds howled through the seemingly-lifeless branches of the trees.

Sometimes I think of winter and spring as in a gigantic fight to determine which shall prevail. At times winter seems to win the battle. Then maybe the very next day spring seems to have won, but finally as the sun climbs its long slow journey back to us, winter's struggles grow weaker and weaker and spring has won the war.



A friend returning this spring from a short vacation in Florida said to me with some emphasis, "Yes, I enjoyed it, but I never would want to live there the year around."

I am sure that most people raised in this north country feel the same way. There is something about the contrast between the rolling seasons that gets into our blood, so that while we may complain about our cold winters and hot summers, we really love them.

HOW COME?

Very conscious of the dangers of over-ambitious leaders who obtain more and more power and thereby destroy the people's liberties, the founders of America were exceedingly careful to spell out the exact powers that each department of government should have and the powers of the leaders.

For example, the Constitution carefully and specifically states the duties and responsibilities of the president, the congress and the judiciary. And the Constitution also very carefully states that all powers not specifically named in the Constitution of the Federal Government shall be reserved for the states. In spite of this, in the last half century our presidents, their executive officers, and their great bureaucracy have gotten around the Constitution and so violated its spirit that America is governed today more by the rules and regulations of the bureaucrats than by the laws of Congress which more closely represents the people.

For example, the Constitution gives the right to declare war only to Congress. How does it come then that we have been in wars, including our present one with Vietnam without its ever being declared by Congress?

I maintain that the liberties of the American people will never be secure until each department of government follows the rules laid down by the United States Constitution.

"NEVER THE SAME AGAIN'

"Ma sent for your 'Journey to Day Before Yesterday' for me and figures I will never be the same again. I think it came to me just about the right time. Seems like lately I have been down in the dumps more than usual. Then I read your book, and jiggers, right away I got to stepping around the house with a bounce. For a time Ma wasn't sure I wasn't stepping out on her. I had a hard time convincing her that all I needed, it seems, was someone to remind me that I had some pretty satisfying times when I was a youngster.

And what good fortune it is today to find myself on a farm. You made my heart scintillate. (Hey, ain't that some word from a feller who has been consorting with woodchucks all his life?) Now I know, thanks to you and your 'Journey to Day Before Yesterday,' that I have not been plowing in hardpan all my life.

"Toodle-OOO! Why, it seems like eating scrumptious chocolate cake again after a lifetime of soda biscuits and bacon fat." *— J. D., Westfield, N.Y.*

You can buy a copy of "Journey to Day Before Yesterday" by writing to American Agriculturist, Department Book, Box 370, Ithaca, New York 14850. The price is $5.95, plus 12 cents tax in New York State.

EASTMAN'S CHESTNUT

The big business man had died and gone to . . . well, not to Heaven. But hardly had he settled down for a nice long smoke when a hearty hand slapped him on the back, and into his ear boomed the voice of a persistent salesman who had pestered him much on earth.

"Well, Mr. Smith," chortled the salesman. "I'm here for the appointment."

"What appointment?" Smith snarled.

"Why, don't you remember?" the salesman went on. "Every time I entered your office on earth you told me you'd see me here!"

SERVICE BUREAU

For The Northeast Farmer

CREDIT CHARGES MOUNT

"Three years ago at the county fair a furnace company had a booth where we guessed the number of beans in a can. The following week their agent came to our home (as he probably did to lots of others) and told my wife she was a winner and had earned a big discount on an oil furnace.

"After a lengthy discussion we signed a contract for $1700, which included full installation and service for a year, payments to be made monthly.

"We fulfilled our part of the contract, never missing a payment until the $1700 was paid; but then they asked for another $620 which they claim is interest. The copy of the contract which they gave us made no mention of interest – only the $1700 total and monthly payments of $40, but the copy they gave our lawyer was different.

"We are elderly people on social security and haven't the means to fight such injustice. We have paid $500 toward a settlement because they were going to sue us, but you might want to print our letter to protect other people."

The contract which our subscriber had signed was not filled in completely. It showed only the $1700 **cash** sale price and the monthly payments of $40. It was not filled in to show either the total credit charge or the number of monthly payments, so there was no way of determining what the interest rate was.

However, the contract does include a notice to the buyer – "Do not sign this agreement before you read it or if it contains any blank space." Our subscriber should not have signed until the blank spaces were filled in. Then he would not have been so shocked when he learned what the cost of the credit really was!

KEEP IT

"I have received a medical book that I never ordered and do not want. Now I am being billed for it. What shall I do? Must I pay postage to return it?"

Under New York State law, a person is under no obligation to return any unordered merchandise. However, many people are still uncertain as to their legal responsibility and whether, if they open the package, they are liable to pay for it.

In order to eliminate any uncertainty, New York Attorney General Lefkowitz has proposed an amendment to the General Business Law to provide that the forwarding of unsolicited or unordered merchandise shall be deemed an unconditional gift and may be disposed of or used as the recipient sees fit.

We received an interesting release from the office of Attorney General Lefkowitz on this subject. It seems that a man in New York City ran an ad in a Tennessee newspaper, offering a way to "get rich quick." A man in Tennessee answered the ad and received a list of names with the advice to buy neckties as cheaply as possible and forward them C.O.D. via United Parcel to persons on the list for prices of $4.95 to $6.95.

He followed the advice and nearly 400 New York City residents were sent $5 C.O.D. packages containing 50¢ neckties. Many consumers paid the C.O.D. price without even examining the contents of the package and only later discovered they had paid an exorbitant price for a cheap item they had not ordered.

Complaints to the Bureau of Consumer Frauds and Protection of the Attorney General's office sparked an investigation conducted with the assistance of United Parcel Service. Upon learning the facts, United Parcel halted all deliveries, returned what they had on hand to the sender, and returned the collected C.O.D. money to the consumers involved.

CAN YOU HELP?

Mrs. Lyle C. Rasbeck, R.F.D. 3, Mexico, N. Y., would like to hear from anyone having information pertaining to the name Krasbeck, Rosbeck or Rasbeck.

* * *

Mrs. Lulu King, Box 114, North Bennington, Vermont 05257, is trying to locate the following out-of-print books: "Hollow Tree Nights and Days," and "The Hollow Tree Snowed in Book," by Albert Bigelow Paine.

* * *

Mrs. Glenn E. Rowell, Tunbridge, Vt., is trying to find the words to a jingle her grandfather used to sing, "Rye Injun dinglets and buckwheat preserves."

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

American Agriculturist, May, 1968

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. R. L. McClain, Kerhonkson $23.65
(refund on order)
Mr. Jim Lewis, Goshen 28.00
(refund on deposit)
Mr. Carlton Loomis, Binghamton 4.95
(refund on book)
Mr. Robert J. Shay, Wappingers Falls 18.37
(refund on shoes)
Mr. Howard J. La Fever, Bovina Center 59.95
(refund on copier)
Mrs. Edwin L. Hunt, Cuba 6.00
(refund on paintings)
Mrs. Amelia Nockelun, Riverhead 6.95
(refund on watch)
Mrs. Douglas Lyon, Milford 26.69
(refund on cards)
Norman Brown & Son, Alexander 234.37
(payment for hay)
Mr. Henry Johnson, Harpursville 19.00
(refund of premium)
Mrs. W. W. Fowler, Millbrook 15.28
(refund on records)

PENNSYLVANIA

Robert Stanley Oliver, Jr., Meshoppen 14.00
(settlement of claim)



Only 3½ months after taking out North American protection Donald Gruber of Hawthorne, Pa. tried to clean out a jammed forage harvester. After shutting off the power, he put in his hand to clean out the tangle. Just then the blades freed up and caught him. His hand was wedged between the blade and housing. By the time he got loose his hand was so cut and broken he had to go by ambulance to the hospital 25 miles away. Two sessions in the operating room kept him there for 36 days.

Local agent Charles Nalbone of Jamestown, N.Y. delivered benefits from North American of $1830.00. Mr. Gruber says. . . .

"Although I had other insurance I'm happy my brother and I decided to take out more when Mr. Nalbone was here. I had no idea I would need it so soon.

North American insurance is a real bargain. Of all the insurance I carry it paid the most."

Donald Gruber

OTHER BENEFITS PAID

William Wahl, Andover, N.Y.	$ 210.00	**Clarence Baker, Albion, N.Y.**	$1200.00
Bales of hay fell—sprain knee		Clothing caught fire—burned back	
Robert Brooks, Binghamton, N.Y.	340.00	**Earl Rude, Mexico, N.Y.**	275.70
Fell from tractor—broke leg		Fell off ladder—inj. chest, ribs	
Lillian Mehnken, Deposit, N.Y.	672.80	**David Brooks, Edmeston, N.Y.**	1285.00
Fell—inj. hip, back		Caught in PTO—inj. ankle, knee	
Donald Hauri, West Valley, N.Y.	970.10	**Henry Nichols, Burlington Flats, N.Y.**	128.56
Kicked by cow—inj. leg		Fell off cleaner—inj. shoulder	
Stuart Klahn, East Otto, N.Y.	351.40	**Kenneth Ames, Canton, N.Y.**	308.73
Bunted by bull—inj. rib		Struck by bale—inj. shoulder	
Theodore Roat, Jamestown, N.Y.	477.64	**Vance Eakins, Potsdam, N.Y.**	1027.63
Slipped—broke ankle, leg		Repairing corn chopper—inj. hand	
John Tenpas, Jr., Clymer, N.Y.	307.83	**Robert Seacord, Warnerville, N.Y.**	201.42
Kicked by cow—inj, knee		Fell down stairs—broke ribs	
Charles Ross, Sherburne, N.Y.	138.08	**Elizabeth Huston, Valois, N.Y.**	1237.14
Slipped in mud—inj. knee		Stepped in hole—broke hip	
Carlton Rushford, Cadyville, N.Y.	231.42	**Jean Poorman, Waterloo, N.Y.**	289.29
Auto accident—broke rib		Fell from wagon—broke ribs	
Gabriel Kiss, Cincinnatus, N.Y.	711.61	**Harold Rude, Woodhull, N.Y.**	218.55
Fell and struck point—inj. leg		Fell—broke rib	
Audrey Ackerman, Bloomville, N.Y.	348.36	**Grason Underwood, Berkshire, N.Y.**	306.08
Kicked by cow—broke ankle		Pushed by cow—inj. back	
Rudolph Bugenhagen, Akron, N.Y.	225.00	**Lloyd Wellman, Trumansburg, N.Y.**	592.14
Fell from roof—inj. shoulder		Auto accident—multi. injuries	
Charles Arrigo, Brant, N.Y.	288.55	**William Tucker, Walworth, N.Y.**	312.75
Crate fell—inj. hand		Ladder slipped—broke ribs, ankle	
Grace Clark, Bergen, N.Y.	247.59	**Ralph H. Wunder, Lyons, N.Y.**	181.08
Horse fell—broke foot		Caught in conveyor—cut finger	
Ernest Edwards, Jr., Pavilion, N.Y.	225.00	**Joseph Zappia, Newark, N.Y.**	200.26
Kicked by cow—injured ankle		Caught in garage door—broke finger	
Irving Hotaling, West Coxsackie, N.Y.	111.42	**Earl Brantner, Penn Yan, N.Y.**	2310.70
Fell dismounting horse—inj. hip		Auto accident—broke ribs, arm	
Lloyd Roberts, Cold Brook, N.Y.	263.56	**Howard Brown, Stevensville, Pa.**	1525.70
Axe slipped—inj. hand		Thrown from tractor—multi. inj.	
Kale Lanphere, Middleville, N.Y.	364.24	**Leon Morton, Wattsburg, Pa.**	1132.27
Caught in saw—inj. thumb		Pinned beneath log—broke pelvis	
Barbara Beutel, Watertown, N.Y.	128.57	**Earlen Haven, Bordentown, N.J.**	314.28
Snowmobile fell—broke finger		Saddle slipped—inj. head	
Seth Schulz, Lowville, N.Y.	1174.20	**Augustus Gaisler, Blairstown, N.J.**	322.73
Fell from ladder—inj. pelvis		Hit by tree—cut head	
Louis Weaver, Lowville, N.Y.	620.38	**Russell Hitchner, Bridgeton, N.J.**	204.42
Gored by bull—injured hand		Caught in chair cog—injured hand	
Howard March, Munnsville, N.Y.	1396.45	**Frank S. Brown, Rowe, Mass.**	923.15
Caught in corn picker—loss of hand		Rim blew off tire—broke leg	
Richard Schuyler, Fort Plain, N.Y.	120.00	**Guy L. Morrill, Bethel, Maine**	353.57
Kicked by cow—inj. back		Crushed by horse—broke collarbone	
Donald Fisher, Syracuse, N.Y.	102.50	**Edmond J. Roy, S. Hampton, N.H.**	186.14
Playing ball—broke leg		Truck acc.—broke ribs	
Frank Wells, II, Honeoye Falls, N.Y.	173.33	**Richard Norris, Shoreham, Vt.**	340.00
Fell from bike—inj. back		Auto accident—broke leg	

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

NORTH AMERICAN COMPANY

FOR LIFE AND HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING — ITHACA, NEW YORK

Keep Your Policies Renewed



MANAGEMENT MAKES THE DIFFERENCE

by Hugh Cosline

ASK ten men to define farm management and you may get ten different answers. Here's mine:

Farm management is the art of combining land, labor and capital in a way to get the lowest cost per unit produced, on enough volume to make a satisfactory net income.

Of course, if the cost of producing a hundredweight of milk, a dozen eggs, or a bushel of wheat is more than the market price, you end up with a loss instead of a profit. At the same time, if your cost of producing a hundred pounds of milk is the lowest in the state, and you only sell 50,000 lbs., Uncle Sam won't ask for much of an income tax!

The Difference

When you sum it all up, management . . . good or bad . . . makes the difference between profit and loss. That sounds simple, but it isn't! Managing a farm is extremely complex. The decisions a farmer must make include how big his business should be, how much and what kind of equipment to buy, how much money to borrow, how big a yield of crop or animal products to aim for, how to manage hired help . . . and a host of others.

How big should your farm be? Right off the bat let's agree that to make a living for its owner a farm must be bigger than was needed only 20 years ago.

When I was a boy, farms of 100 acres were common, and thirty cows were considered a big dairy. Now one man cares for fifty or more. When Ed Babcock was writing "Kernels, Screenings & Chaff" in American Agriculturist, he said that a dairyman should strive to produce 100,000 lbs. of milk for each man employed on the farm. Now, many dairymen produce 500,000 pounds per man and some are aiming at a million!

When I was in college, the world-famous Jimmy Rice told us that 1,000 hens made a full-time job for one man; now one man takes care of 10,000 or 20,000 or more.

Margin Shrunk

As this has happened, the margin between cost and market price has narrowed, so making a living on a farm means a smaller net return per unit produced . . . but on many more units.

Then it's still a question of how big to get. First, get big enough to keep yourself and the family steadily employed the year 'round. True enough, some farmers spend the winters in the sunny South, but not many.

I like to think of farm size in terms of manpower . . . a one, two, or three-man farm . . . and after that a corporation farm, or a family farm operated by several brothers, or a farm that uses migrant labor.

So, it becomes a question of how many cows, how many hens, or how many acres one man can handle without serious neglect. Incidentally, the reason he can handle more than Pa or Grandpa did is that he owns a lot of labor-saving equipment.

If you own a one-man farm, and it's big enough to keep you profitably occupied, there isn't much reason to get bigger unless you get big enough for two men. Otherwise you'll work yourself to death, or have a hired man with too little work to make you a profit.

Tied Down

Many people object to the idea of a one-man farm, arguing that it keeps the owner tied down and "what will happen if he gets sick?"

But it's not easy for the owner of a big farm to get away either . . . and anyway, I have seen many small farmers who do get away. When they are ill, the wife and the neighbors (and the kids almost as soon as they can walk) pitch in and the job gets done.

The big farm has its problems, too. Figures show that a big farm can make more money than a small one. BUT it can also LOSE MORE! Again it's a question of good or bad management, so if you're toying with the idea of expanding, here are some questions to ask yourself:

Questions to Ask

1. Can I handle a bigger farm?

Some can; some can't. How can you tell? There's no sure way. I asked a farm credit man how his outfit decided "yes" or "no" on a farm loan request. "We do a better job than we did," he replied. "We study the farmer's record carefully, but we still make mistakes. If you have a foolproof way of making the right answer, we'll be glad to hire you at a good salary!"

However, unless you can point with pride to your good management on your present farm, it's unlikely you will do better on a bigger one.

Probably the most crucial question is: Can I manage people well? Whether you're working with relatives or employees, getting a larger business means involving more people.

2. How old am I?

Expansion of a business is for young men. What is a good deal for a 30-year-old may be a very poor deal for his neighbor who is 50.

3. Are my sons headed toward farming?

If so, I have some help while they are growing up, and one or more may be interested in a partnership deal. Even now, with a growing family, I need more income.

On the Kristoff farm, Glastonbury, Connecticut, there are four men, three brothers . . . Ernie, Francis, Martin . . . and Martin, Jr. Obviously, a sizable business is essential in order to support four families.

Possible Alternatives

But even if you need more income, there are alternatives to expansion:

1. Doing better with what you have.

One way to do better is to step up yields per acre and per animal . . . more milk per cow, more eggs per hen, more tons of corn silage per acre.

Merton Plaisted, Hammondsport, New York, has one of the top-producing herds in the State. He has 26 producers and his dad helps about half time. Merton says: "I have no desire to expand the herd to 100 cows."

Gordon Cook, Ludlowville, New York, runs a one-man farm with 35 milkers and has no plans to expand. One year Gordon was chosen as the outstanding young farmer in Tompkins County!

Phil Munson of North Lansing, New York, is aiming for 30 tons of corn silage per acre. He isn't far away, with a record of 26 tons.

Another way to improve your present business is to cut production costs by buying carefully, and preventing waste. Of course, increasing yields by controlling weeds and diseases, or by better feeding or fertilization also cuts the cost of production per unit.

2. Getting income from some other source.

A part-time job may be available, perhaps on a neighboring farm, or in a nearby community. You might run for town supervisor or some other office.

The Green brothers . . . Glenn, Carl, and Ned . . . West Monroe, New York, have a large dairy farm (which supports three families), but rather than expanding the dairy they are building a golf course, on which the public will be welcome . . . for a fee!

3. You might rearrange your farm business.

John Charlesworth of Little Valley, New York, buys dairy replacements instead of raising them. He also buys some of the roughage and grain to feed the herd. This makes it possible to keep more cows that are producing milk, the principal salable product.

Some men sell at retail or to stores. Frank Tantillo of Gardner, New York, has no desire to expand. Most of the fruit (except apples) is sold at a roadside stand. David Davis, Mount Sinai, Long Island, has a one-man peach farm. He sells at retail and to roadside stands, and has no plans to get bigger.

Roger King, Trumansburg, New York, runs a one-man fruit farm. He sells the products from 40 acres of apples and 10 of sweet cherries right at the farm.

James Foster of Sheffield, Massachusetts, has a family-size poultry farm, and sells most of the eggs at retail. He says: "If I had to depend on a wholesale market I would soon be out of the poultry business."

Some farmers who have had hens and sold eggs on the wholesale market as a sideline are getting out. They say: "It was a question of getting out or getting bigger."

Disadvantages

I have the feeling that the advantages of larger size have been overemphasized while the disadvantages have been played down. On the other hand, I have no quarrel with size. Some men aren't happy unless they are running a big business. That's fine, but some men do not have the necessary ability to handle a really big farm, and we do them a disservice when we encourage them to get beyond their depth.

Before You Leap

If you are seriously considering expansion, there are a lot more questions that need answering. For example:

(1) Can I borrow money and how much should I borrow? Have I established a good credit rating?

(2) How much capital have I accumulated? (If the answer is "none," better go slow on borrowing.)

(3) How much total capital will I need?

(4) How much equipment will I need? How can I reduce the amount without cutting efficiency?

Gerald Dann of Addison, New York, says: "One way to keep costs low is to buy good used equipment, and have a good farm shop to keep it running!"

(5) Are present buildings adequate, or must I build? If so, how do you decide the best type of building?

(6) Is nearby land available for purchase or rent?

(7) Do I have the ability to manage hired help?

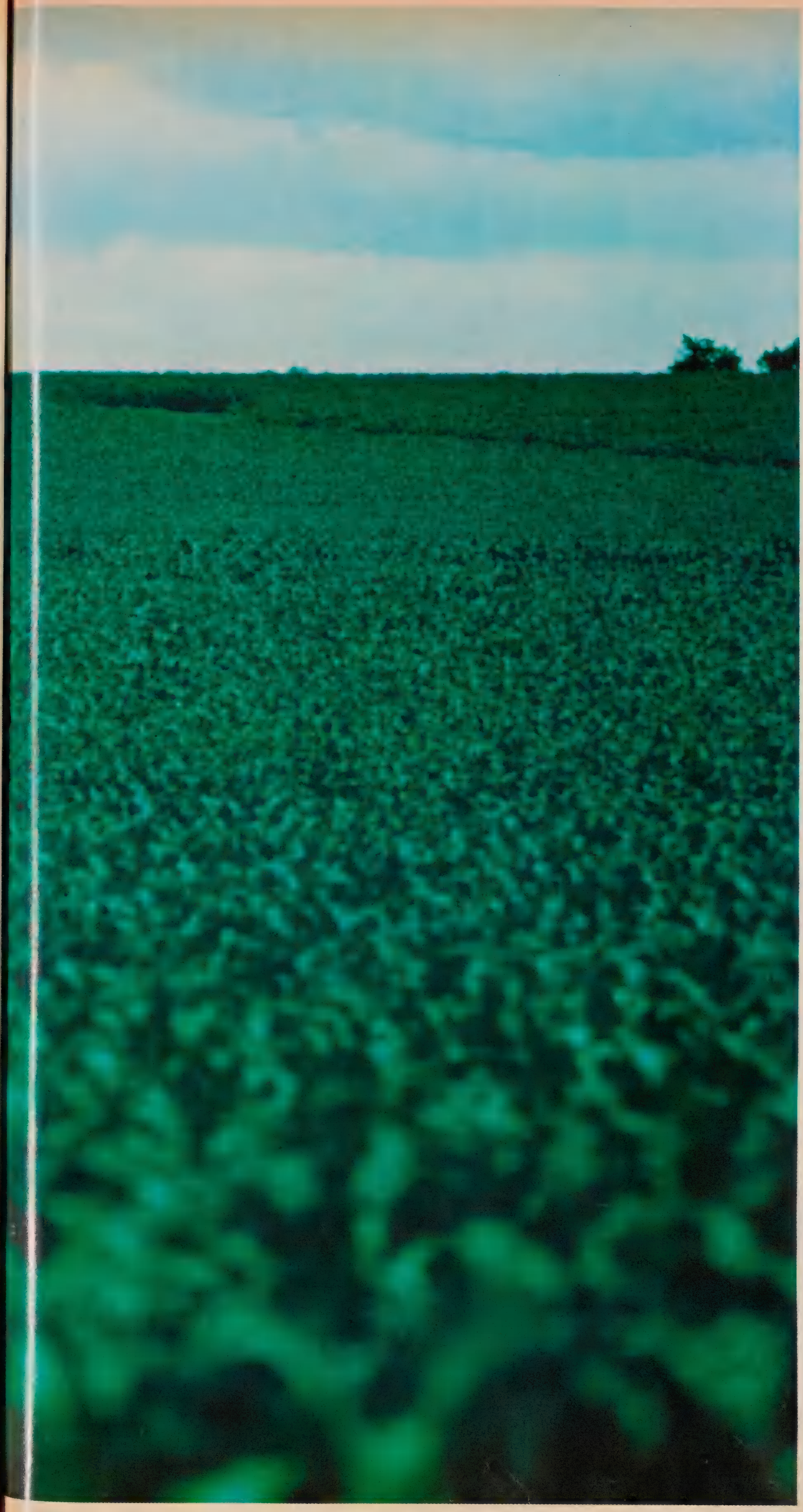
Jack Zwert of Washingtonville, New York, has one man who has been with him for ten years, and one who has worked for him six. Could you do that?

(8) Are we willing to keep the necessary records, and to study them to increase our efficiency?

(9) Are members of the family sold on the wisdom of expansion?

Try your level best to face the facts objectively and answer these questions with your logic, rather than your emotions. It may hurt at the time, but it pays big dividends over the long run!

American Agriculturist, May, 1968



He's haying.

Instead of having to cultivate corn when it's time to get hay in.

One spray of Atrazine herbicide has kept this corn clean since planting. And will continue to keep it clean right through to harvest.

Because one spray of Atrazine assures season-long control of most annual broadleaf and grassy weeds.

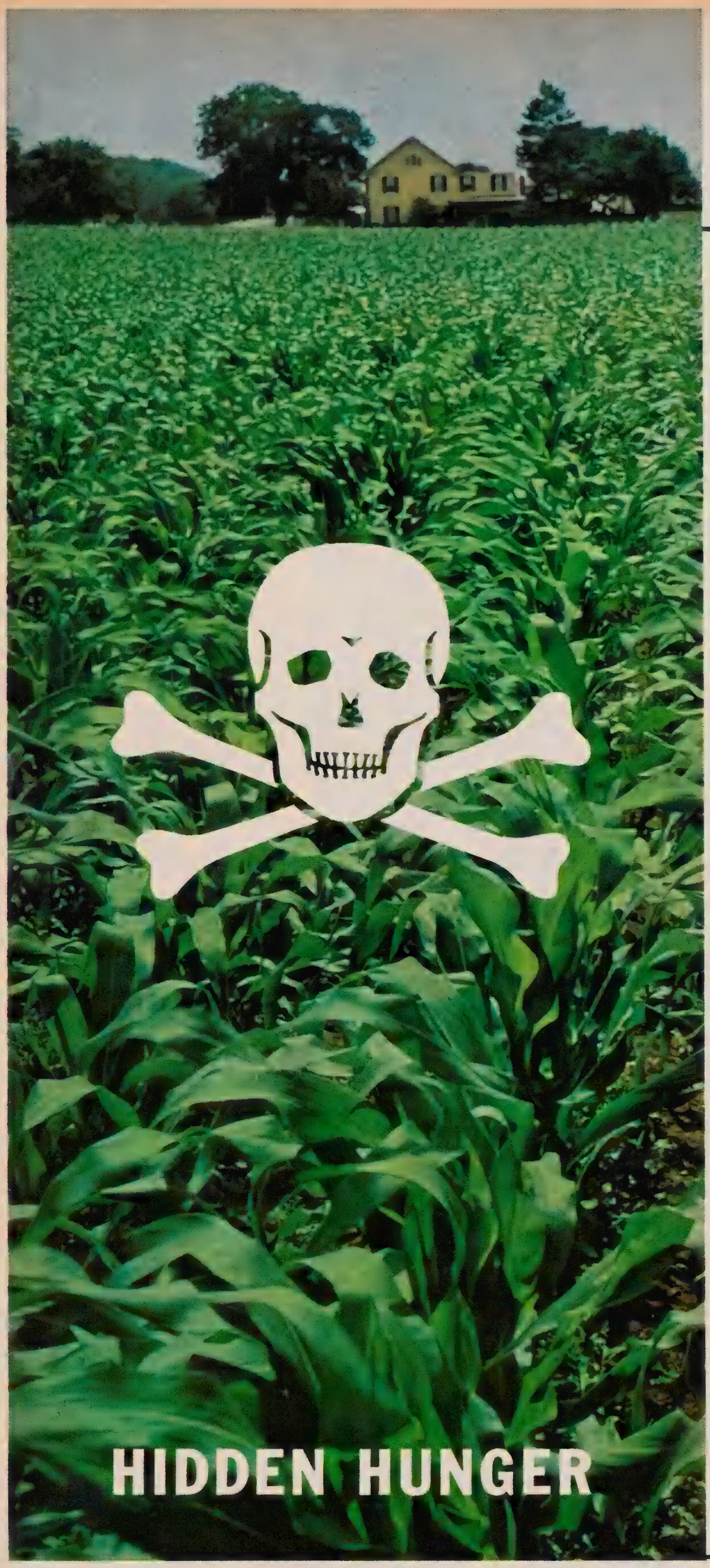
So there's no conflict between haying and cultivating corn. Because there are no weeds to cultivate. Just plenty of hay to get in right on time.

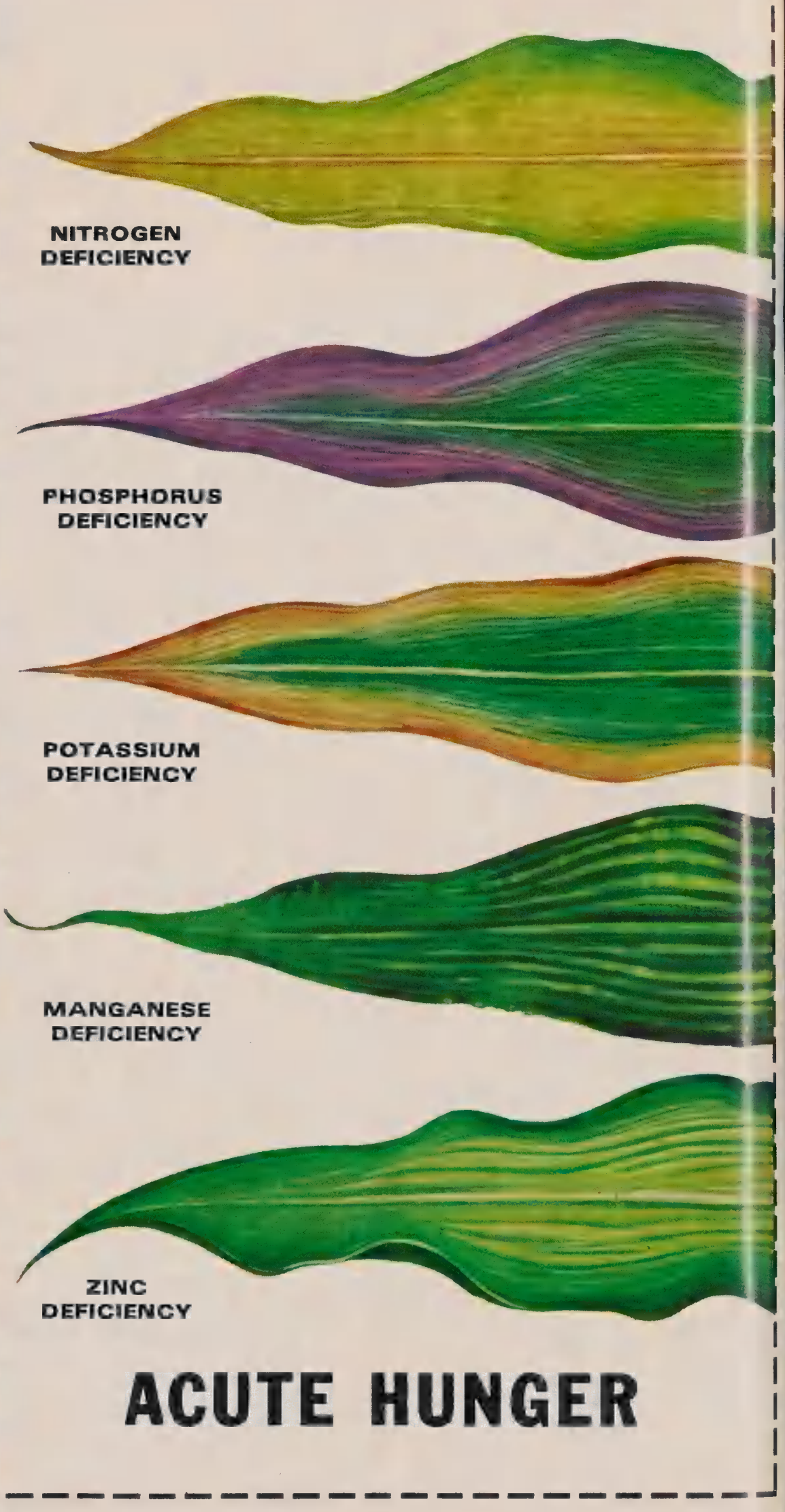
If quackgrass is a problem, a split application of Atrazine will do the job. Just apply before plowing and again at planting.

Sounds good? You bet it is. Ask your local supplier now for the Atrazine you need.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Ardsley, New York 10502.

Geigy/Atrazine





Get healthy corn profits with BONANZA!

You can't see hidden hunger in corn. Most soil tests can't tell you about it, either. But, you'll know at harvest time . . . when your yields, quality and profits are *down*. You can protect your corn from hidden hunger . . . and acute hunger . . . with Royster BONANZA.

Scientifically formulated for *your* area, Royster BONANZA contains all 13 primary plant foods, secondary plant foods and vital Trace Elements your crops must have for top yields, highest quality and biggest profits. None of these 13 plant food elements can substitute for another; your corn needs them *all* . . . and gets them all with BONANZA.

BONANZA's exclusive formulation of Trace Elements resists both leaching and becoming fixed in the soil . . . making them available in the root zone all through the growing season.

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For The Northeast Farmer

JUNE 1968

American Agriculturist

and the

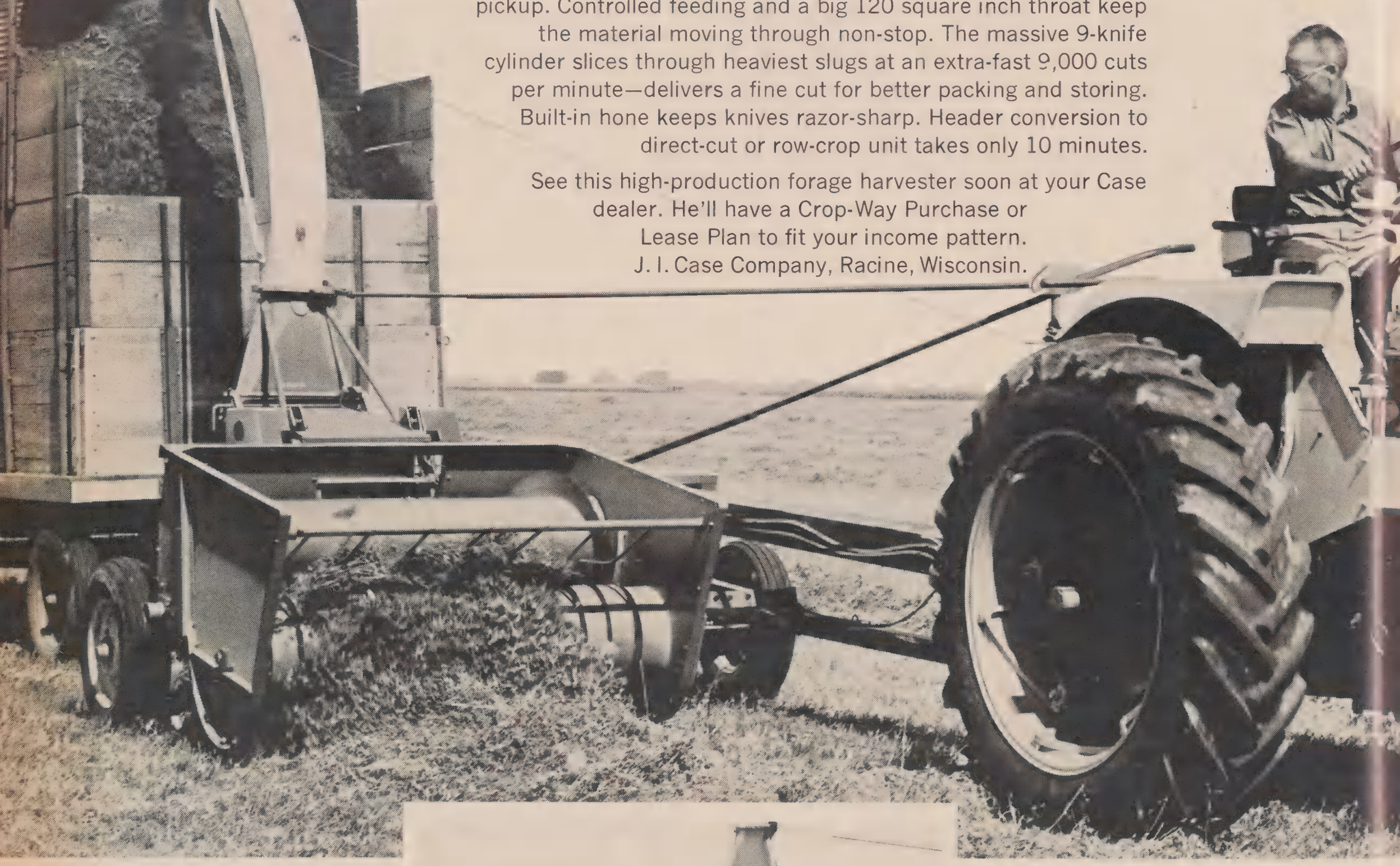
RURAL NEW YORKER

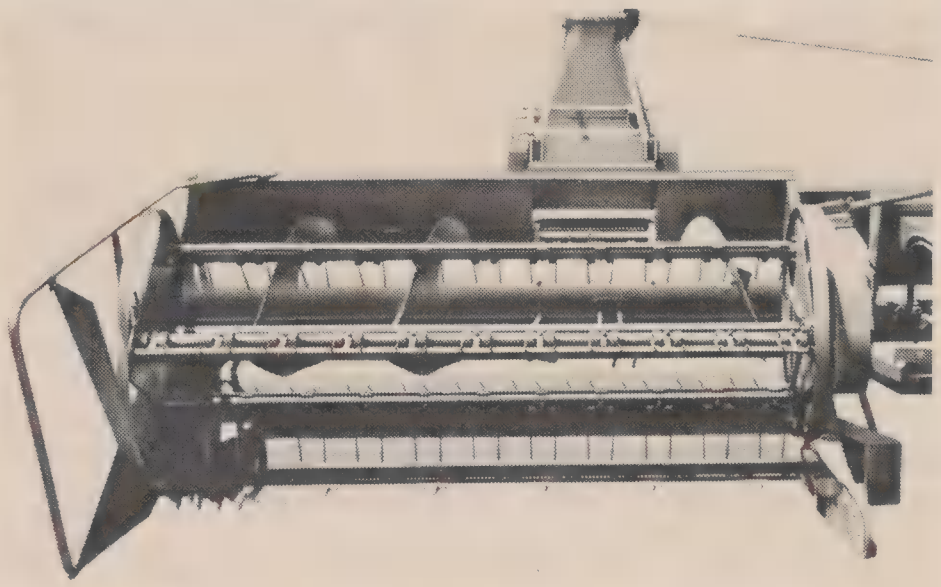
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American Agriculturist
and the
RURAL NEW YORKER

For The Northeast Farmer

Vol. 165, No. 6

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OUR COVER

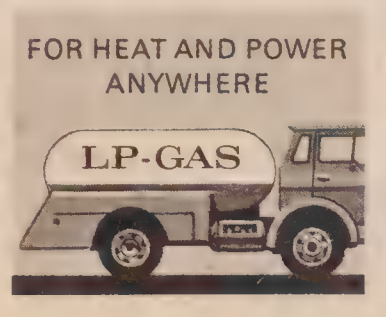
Amidst a world of tumult and upset, the dairy cow placidly continues her age-old task of creating a superb food product. Grant Heilman shuttered the picture on the Bruckhart Farm near Manheim, Pennsylvania.



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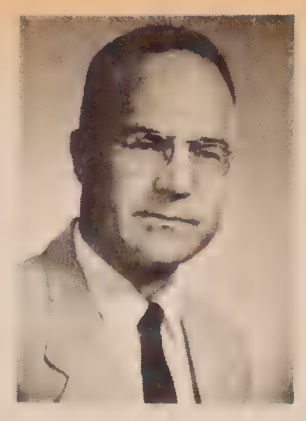
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EDITORIALS



by GORDON CONKLIN

MINORITY RULE

A tiny fraction of a college's student body brings classes to a halt by forcibly taking over the administration buildings . . . while college authorities cower in panic, and the majority of students ask when they'll be allowed to get an education.

A small percentage of big-city Negroes loot and burn . . . while police look on, under orders to "be nice to the underprivileged."

It is as though a paralysis of the majority had set in. Is this the "softness" that historians tell us has preceded the crumbling of great nations and empires across the ages? Freedom has never been a kind of credit card allowing a person to do as he damn well pleases. Real freedom can exist only among a disciplined people that accept the responsibilities interwoven with all privileges.

It seems to me that one of the great injustices in the United States of our day has been the permissive attitude toward lawbreakers in the cities . . . allowing them to loot and burn the hard-won accumulations of responsible people. On the one hand, government programs seek to convert the unemployed to wage earners . . . and then the police stand by while the fruits of effort go up in smoke, or down the street to the home of a looter. That's incentive to become productive?

We are reaping the harvest of a generation of permissiveness . . . the idea that the poor little psyche develops a terrible warp if anyone is frustrated by discipline. Teamed with a growing material affluence, this notion has led us to levels of divorce, crime, vandalism, drug addiction, and general irresponsibility that seriously threaten us all.

Isn't it time we stopped discriminating against the majority of people who believe in operating within the framework of the law? Aren't there "majority rights" as well as "minority rights"?

What's your opinion?

OVERCOME WITH KINDNESS

About a hundred years ago, the leaders of this nation wisely decided to publicly finance programs designed to undergird the development of a highly-efficient agriculture. Their wisdom has been proven by a food and fiber production efficiency that is the wonder of the world.

U.S. farmers for the last 100 years have come to rely heavily upon the Land Grant Colleges, the Extension Service, the USDA, Soil Conservation Service, and other agencies. This legacy of publicly-financed assistance, though, has tended to discourage farmers from seeking out the services of private consultants and others whose expertise could help them make better management decisions.

If we consider as commercial farmers only those with annual gross incomes of $10,000 or more, we find that incomes are good. In fact, the Economic Research Service of the USDA reports that the parity level for the $10,000 to $20,000 group was 90 percent in 1964 and 98 percent in 1966 . . . while U.S. farms with gross incomes of $20,000 or more showed comparable parity figures of 158 and 167 percent (1910-14 = 100 percent).

Is it possible that some of these commercial farmers have limited the information base of their management because they've been led to believe that the services of all the "experts" in agribusiness should be free? And have they been realistic in understanding how much it costs their cooperatives to provide competent field staffs? Has commercial U.S. agriculture come of age so that it should logically expect to now carry a greater share of the cost of the marvelous technology that serves it?

STUDENT GRANT

Rodger W. Beck, a communication arts student at Cornell University, has been selected for a special internship grant given by the American Agriculturist Foundation, Inc. He is the son of Mr. and Mrs. William Beck of Whiting Road, Memphis, New York, and is a sophomore in the Department of Communication Arts at the New York State College of Agriculture, Cornell.



The grant has been awarded the past two years to help a student gain professional experience in agricultural communications. Last year it was held by James J. Oliphant, now a senior in the College of Agriculture.

Beck was first in his class at Jordan–Elbridge High School in 1966. He was president of the National Honor Society in his senior year, and member of Future Farmers of America and 4–H. Also, he was on the yearbook staff and wrote editorials for his high school newspaper.

Welcome aboard, Rodger!

FREEDOM IS NOT FREE

The egg-producing industry has historically been relatively unregulated as far as production controls are concerned . . . no price regulation, no government price supports, and with complete freedom of entry. Egg prices have traditionally gone up and down the roller coaster as they performed their economic function of adjusting supply to demand.

Over years past, a considerable part of that adjustment of supply involved part-time or sideline poultry enterprises where changes in response to low prices were fairly painless. Now, though, most cackleberry production is concentrated in the hands of commercial producers who literally have all their eggs in one basket . . . and crushingly low egg prices like those of past months can be disastrous.

Some poultry industry people are convinced that some type of industry-wide supply and price mechanism has become necessary. The Maine Poultry Improvement Association reports a survey of its egg producers showing 76 percent opposed to federal enabling legislation for an egg marketing order. But the 24 percent in favor of such legislation represented 1.5 million layers versus the 1.2 million birds owned by the 76 percent opposed.

It's been obvious that the freedom to make unlimited individual decisions can prove expensive in terms of lowering the entire industry's profit potential. Stated another way, it's also obvious that the attainment of united "clout" in the market will cost producers some degree of freedom in individual decision-making . . . the greater the cohesiveness of organization, the greater the cost.

The guts of the debate over how best to get greater farm bargaining power involves the values held by farm people . . . how much they value individual freedom versus the possibilities of great power structures that submerge the individual on behalf of collective muscle in the marketplace.

Make no mistake, folks, the price of real "clout" comes high . . . but it's been paid by many people in our society in their reach for collective bargaining power. Many farmers are currently dreaming along the primrose path of thinking that they can keep the cake of freedom at the same time they consume the frosting of bargaining power.

No dice . . . bargaining power, like anything worthwhile, costs dearly. Freedom is expensive . . . and so is real muscle at the bargaining table.

NO GUNS

There's a big cat that roams my neighborhood . . . bloodying up all the other cats, and even killing a litter of kittens now and then. He's big, tough, and mean . . . seemingly enjoying the screams of his victims. So far, I haven't gotten him lined up along the sights of the Old Equalizer, but his time will come!

There are those who would outlaw guns and leave all of us . . . including the cats . . . to the mercy of those who have no mercy. Condemning guns as instruments of attack, some people would sacrifice upon the altar of wishful thinking the lives of the defenseless.

Laws designed to make it more difficult for the mentally unbalanced to obtain guns should be tightened up . . . as should enforcement of regulations prohibiting possession of automatic weapons. Connecticut and Illinois have reasonable state gun laws that could well provide guidelines for other states. Sportsmen and farmers should prepare reasonable counter-proposals to the dreamy-eyed anti-gun laws being put in legislative hoppers.

Let's avoid disarming the responsible populace merely because every so often some irresponsible nut makes headlines with a gun!

Irresponsibility and alcohol team up to help kill 50,000 people on the nation's highways every year . . . but no hue and cry develops to do much about it!

How out of perspective can we get?

BARGAINING

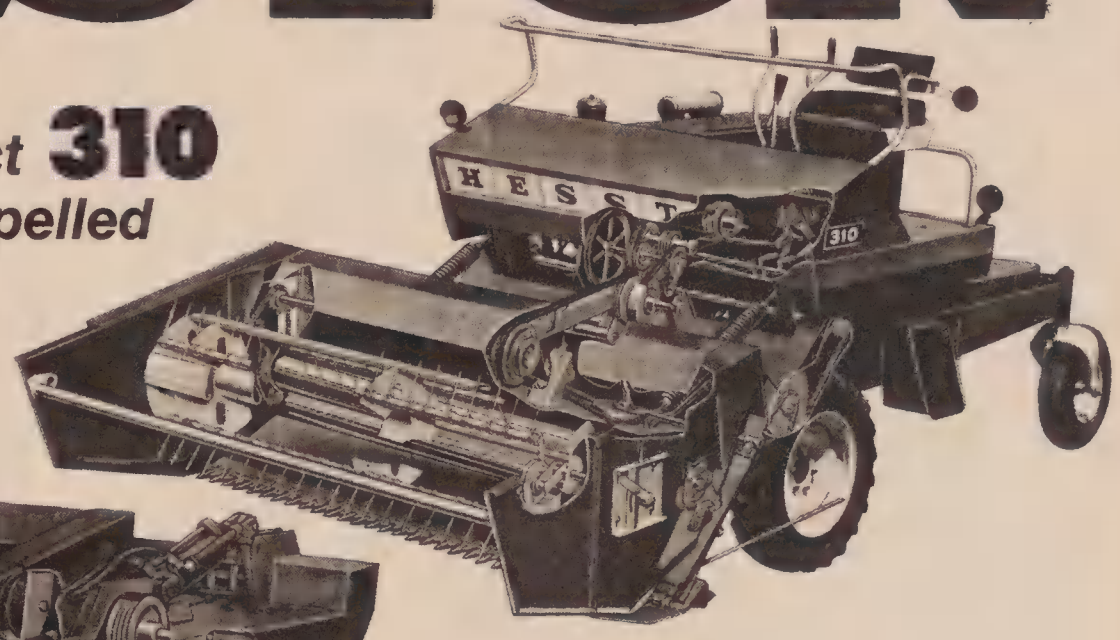
Farmers note that the organization, power, and stability of the large buyers or sellers with whom they deal often give these firms the opportunity to integrate into farming and capture for themselves the benefit of improved organization and coordination. Farmers live in a disciplined world, but they have not yet developed vehicles with which to discipline themselves. They fear integration by firms outside of agriculture. *(— Under Secretary John A. Schnittker, U.S. Department of Agriculture.)*

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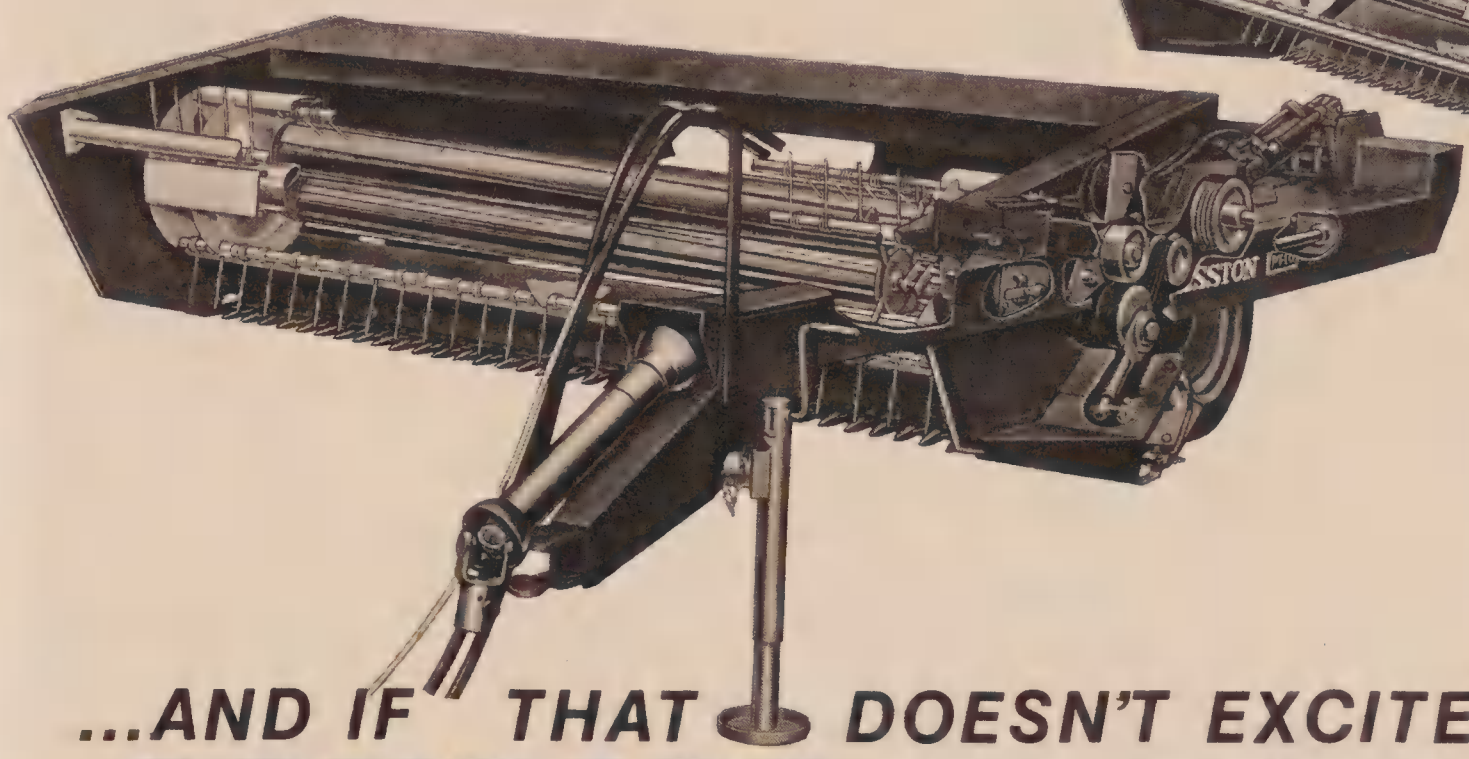
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by E. H. Fallon*

SUBSTITUTES— A GROWING CHALLENGE TO NORTHEAST AGRICULTURE

THE U.S. Department of Agriculture recently released a very startling report. Fifty percent of American families, the report said, have a diet that is less than adequate nutritionally. Unbelievable as it sounds, our national eating habits are actually poorer than they were 15 years ago!

The report went on to point out what the deficiencies are: mainly they are protein, calcium, and several of the important vitamins.

I think this situation is most significant to northeastern agriculture.

Meat and eggs supply protein. Fruit and vegetables supply many of the essential vitamins. Milk is the principal source of calcium, and furnishes high-quality protein and certain key vitamins as well. These are the very products that form the backbone of our agriculture.

Thus many Americans are poorly fed because they aren't eating enough of our products . . . the products we produce right here in the Northeast.

Babcock Philosophy

H.E. Babcock, one of the great cooperative leaders of all time, in 1949 wrote: " . . . the American people as a whole always will be willing to pay, and if they have to, work to get the money to buy the meat around which they build their meals, milk for their children, and the eggs and the butter and the cheese that make the difference between a coolie ration and the food all people like."

Yet today, with more nutritional information available to everyone, with family incomes at an all-time high, instead of eating **more** of these products, the American family is eating **less.** The only exception is meat; per capita consumption of all other animal products is down.

I don't pretend to know all the reasons for this, but there are a few that stand out. Dieting is one. More and more people are concerned about weight. Fat, once the most valued part of the diet, has become almost a bad word. Closely related to this is the cholesterol scare. Not all doctors are so sure today that animal fats are the real culprits, but a lot of people have been scared off them just the same.

Another thing . . . in a great many families breakfast isn't the major meal it used to be. Fewer people do heavy manual work; the office worker doesn't need hearty food in the morning like the lumberjack or the farmer. And more and more wives now work outside the home . . . they are pressed for time in the morning. This may also mean less attention to the family's nutrition at other times of the day.

For these and probably other reasons, the American people are enjoying less than they should of the flavor, the goodness, and the nourishment of the choice foods we produce here in the Northeast. And northeastern farmers are losing accordingly.

Substitutes

The change in eating habits of the American people is one cause for concern. Substitute products are another.

I first became interested in substitute food products while serving on the President's National Advisory Commission on Food and Fiber. More recently, because of some things that are happening in the dairy industry. I have made a further study of substitutes and their possible effect on Northeast agriculture.

Historically, nearly all of our food and most of our clothing have been supplied by agriculture. Farming provided virtually all the food we ate, except sea food. For clothing, we relied chiefly on wool, cotton, flax, and leather.

This has changed. Substitution in fibers has moved far and fast. Until recently, there has been relatively little substitution in foods. A look at what happened to fibers may give us some clues as to what we can expect to happen to food.

Cotton Replaced

Since 1939 fiber use has almost doubled, but wool consumption has decreased. "King Cotton," which once had 78 percent of the fiber market, now commands only 44 percent. The market has shifted to synthetics. Rayon, the first synthetic fiber, was followed by Nylon, Orlon, Dacron and a host of other chemically-based fibers for clothing, carpeting and other fabrics.

Leather is another victim of substitution. It has lost a big share of its market to vinyl, Corfam, and other composition products. Of the millions of pairs of leather shoes made in the United States this year, three out of four pairs will have nonleather soles. And one pair in five will have nonleather uppers.

Why are synthetics taking over? Sometimes it is because of lower cost. But more often the synthetic has other advantages, such as uniformity, ease of manufacture, durability, washability, greater shelf life, or better handling qualities.

There are two kinds of substitutes. One is a chemical product which replaces an agricultural product, like the examples I have cited up to this point. The other is a vegetable product which takes the place of an animal product: as an example, vegetable shortening, which has three-quarters of the market formerly supplied by lard. Both types of substitutes have a bearing on the future of northeastern agriculture.

There was a time when substitute products were regarded by consumers as something less than acceptable. This is no longer the case. Substitutes have become respectable. There is no stigma attached to their sale or use.

Now let's take a look at the food substitute picture.

Artificial sweeteners, artificial fruit drinks, artificial meat, and artificial dairy products have made their appearance at an ever-increasing rate in recent months.

With "diet" soft drinks now at 25 percent of the market, artificial sweeteners have cut seriously into sugar's biggest single sales outlet. From 1964 to 1966, production of sugar substitutes rose from 10 million pounds to 30 million pounds a year, while the price of the substitute dropped from $2 a pound to 64 cents a pound.

To compete economically, sugar would have to be produced to sell for one cent a pound.

Fruit Juices

The fruit beverage business, particularly the citrus drink side of it, has felt the sting of substitutes. This billion-dollar-a-year business is made up of 70 percent real fruit juices, 20 percent substitutes (which combine natural and synthetic ingredients), and five percent complete synthetics. The synthetics are growing; the real juice is shrinking.

We may not have reason to be concerned about imitation orange juice in the Northeast, but have you seen the new imitation grape juice being sold in grocery stores? That's getting close to home!

Substitute meats are beginning to appear. A substitute bacon product, made of soybeans, which was test-marketed in Syracuse only a couple of years ago, now has gone into national distribution. Diced chicken and diced ham-type products are being tested. I'm told it's possible to make a synthetic ham product made up of 30 percent protein, with only one percent fat and no animal fat at all. Recently I saw an advertisement for a synthetic turkey roast.

I'm sure that these imitation meat products are not going to replace real meat . . . not in our lifetime, anyway. But how far do they have to go before livestock men feel the effects?

A fact too little recognized in relation to substitute products is the capacity of the human stomach. The average person eats about 1500 pounds of food a year Some more, some less, but the point is that there is a limit. If you eat a couple of hamburgers you have that much less room for dinner. To some degree, every food and beverage product competes with every other one.

Dairy products, with the exception of fluid milk, have probably been subjected to more competition from substitutes than any other agricultural product. Oleomargarine has taken more than two-thirds of the "spread" market from butter. Coffee whiteners, imitation toppings and other cream replacers now hold about one-third of the market formerly held by cream. The American Dairy Association estimates that the dairy industry would have to be 25 percent larger than it is today to supply the volume lost to substitutes.

Imitation Milk

Now we see the appearance of "filled milk" in many parts of the country. Although this product made of skim milk and vegetable fat seems to be moving at a slow pace, potentially it could cut into fluid milk sales in the Northeast to the detriment of dairymen.

However, I am more concerned about the prospects of a completely-synthetic milk which contains no dairy products at all. I feel this is a greater threat in the long run.

For some time, researchers have been working on an imitation milk made from soybean derivatives. It is being test-marketed in several communities. If and when a soybean-based "milk" is able to compete with real milk in flavor, texture and nutrition, dairymen will have a real battle on their hands. The economics favor soybeans as far as cost of producing protein and fat are concerned (see accompanying table).

COMPARATIVE COSTS OF MILK AND SOYBEANS, U.S.

	Milk	Soybeans
Quantity	100 lbs.	100 lbs.
Protein	3.5 lbs.	37.9 lbs.
Fat	3.8 lbs.	18 lbs.
Est. Cost of Production	$ 4.47	$ 2.83
Price of Fat Per Lb. (approx.)	$.80	$.12

This is stiff competition.

(Continued on page 7)

* Executive Vice President and General Manager Agway Inc.

Substitutes

(Continued from page 6)

But there is a great and important lesson to be learned from the progress made by substitutes. Every substitute product that threatens the market for one of our agricultural products is the result of research and development. Our competitors have been beating us because they spend millions on developing and improving products, and we don't.

When there has been time, energy and money spent on product development, there has been progress. All of us are familiar with the story of Ocean Spray. This cooperative took the simple cranberry and developed out of it a dozen new products, thus opening up new markets for its members. The potato industry has arrested a per capita consumption decline by introducing new and improved . . . convenience products . . . such as frozen French fries, instant mashed, hash browned, and cottage fries.

New Lab

In Agway we have recently established a new product laboratory. We have a team of men and women, trained scientists, trying to develop new products made from eggs, apples, potatoes, and other commodities that Northeast farmers produce. The idea is to make food products that are tasty, easy for the housewife to fix, and thus maintain and expand the markets for our farm producers.

I have the privilege of serving on a committee with a number of dairy cooperative leaders. This committee is considering a major project for new product development. I hope and believe that this project will materialize.

Time Running Out

What I am coming down to is this: There is no room for complacency among northeastern farmers today. We have many plus factors going for us. We are next door to the nation's greatest markets. We produce some of the finest food products in the world. But no longer can we take it for granted that everything is going to stay the way it has been. The forces of change are at work. They are moving faster and faster. I have no qualms about the future, providing we recognize those forces and act accordingly.

To maintain and strengthen the position of northeastern agriculture, we are challenged:

To do an even better job of producing quality food and getting it to the consumer at a favorable price.

To promote our products . . . they are good; let's say so and keep on saying so, and spend some money to let people know.

To continually improve our products, just as our industrial competitors do.

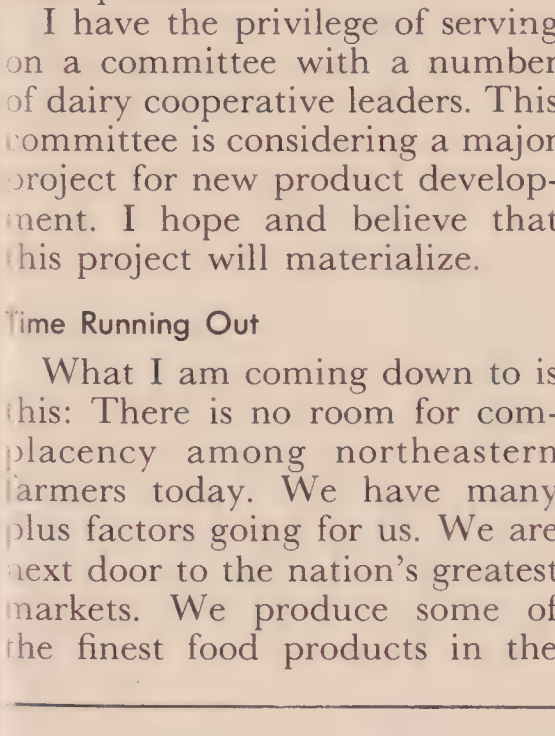
This is a job for every farmer, every farm organization, every cooperative. A job for our land grant colleges and extension service, for our state and federal agricultural departments. In short, it's a job for all of us. Let's do it together.

NEW DAIRY TREND?

Perhaps denoting a new trend, the DHIC directors of Monroe, Niagara, and Orleans counties have signed agreements of affiliation with the New York DHIC. The agreements make NYDHIC responsible for employment and management of personnel in the three-county area, and for bookkeeping services. Two directors from each county will serve as an advisory council, and will participate in making policy decisions, and assist the area manager in personnel and publication relations.

With a uniform fee and wage rate for the area, the new system will allow more versatility, since employees can provide services to herds without regard to county boundaries. As soon as a suitable site can be contracted for, a central laboratory will be set up. Installed as part of the new laboratory will be a Foss Milk-O-Tester.

The Song of the Lazy Farmer



This time of year's romantic, so Mirandy's running to and fro; she's all involved in wedding whirls of half a dozen neighbor girls. With that strange glee all women get when there's new suckers in the net, she's working nearly ev'ry day to make sure they don't get away. There's cakes to bake and gowns to sew, and in between she has to go to things called "showers" which, to me, are simply legal robbery. Though most those brides she hardly knows, she's interested, I suppose, 'cause she is tickled pink to see her mis'ry get some company.

But I don't feel like that at all, it gives me pleasure to recall the glorious day when we were wed. I felt no mis'ry when I said "I do," and in a one-horse shay took my Mirandy home to stay. I didn't feel I was a sap who'd got himself caught in a trap, 'cause that's the day I cast my hook and got the neighborhood's best cook; and for all time I guaranteed I'd have the help that I would need to give me long and restful life. Not ev'ry man can land a wife who's good enough at chores so he don't have to do a lick, by gee.

American Agriculturist, June, 1968

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Gehl boxes provide day-in, day-out, mile after mile of the safest crop hauling and handling possible. Gehl builds them that way.

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- Four-chain feeder apron hustles crops to sturdy front beaters —provides steady handling of heaviest loads.
- Ribbed rubber cross conveyor assures high-speed, even-flow unloading.

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Doc Mettler Comments On.

LEPTOSPIROSIS

ON THESE fine June mornings I sometimes have a feeling that things are going too well. The Scots have a word for that sense of fate; they call it "fey." Finding a cow that you expected to calve in September with a dead aborted fetus can take all the joy out of a June morning, whether you be Scottish, Swiss, or just plain mixed-ancestry American.

The normal first reaction to such a shock is to try to remember when you saw this particular cow running, jumping, fighting, or falling recently. If you think hard enough you can always find an excuse for the abortion. If you have gone through this sort of thing before, however, you are apt to probe deeper, and should call in your veterinarian for help in making a diagnosis.

The author is a practicing veterinarian at Copake Falls, New York

Probably half the abortions which occur during the early pasture season will go undiagnosed even if blood is drawn and tests made. However, if several occur, there has to be some reason other than the odd unpreventable things such as twinning, lethal genes, hormone imbalance, etc. Today all of us concerned with the cattle business tend to blame everything on viruses. Too often we don't take blood samples, and too often we are missing the most common cause of abortions, leptospirosis.

Vaccination

Yes, we should not rule out brucellosis, even if the disease has been practically eliminated; and we should consider vibriosis and the viruses. However, vibriosis is very rare today when artificial insemination with treated semen is used, and a single blood sample showing that a cow had had an attack of IBR or virus diarrhea doesn't mean that is what aborted her.

Rely on the judgment of your veterinarian. If reaction to a single virus is apparent on samples of blood from all aborting cows in your herd, it might be wise to start an anti-virus vaccination program. If the blood tests show leptospirosis infection in your herd, by all means have all animals of breeding age (pregnant or not) inoculated immediately, and have this repeated once a year.

A few years ago there was a great deal of publicity on leptospirosis, but we seem to have forgotten about it because of the more frightening spectre of the virus diseases. In our own practice area few herds dare to skip a year on lepto immunization.

Carrier Cows

Most herds seem to have a few carrier cows, not sick themselves but capable of spreading the disease every time they urinate. Besides, the wild animals are capable of acting as reservoirs of infection, and can contaminate stagnant water holes where cattle drink.

There are many different types of leptospirosis organisms, but the one affecting cattle and swine is usually **leptospira pomona.** For some reason the organism can gain entrance to the body to cause infection easier through the nasal mucosa (lining of the nostrils) than through the lining of the digestive tract. Due to this, animals sniffing splattered urine or sticking their noses deep in a stagnant infected water hole gain infection, whereas one drinking the same water might not.

Symptoms

Cattle can go through an attack of lepto and never miss a feeding, be down only slightly on milk and yet abort. Others will run a high fever, dry up on milk production, pass bloody urine, and still not abort. The usual case we see is a cow that is way off on milk (sometimes the milk is thick like a dry cow's milk but the udder is not swollen), slightly off feed, has a slight fever (103-104) and, in the owner's words, acts "dopey" or droopy." These usually respond to antibiotics, but in a week or month will, if pregnant at the time of sickness, abort a calf that obviously died long before it was passed. Often these animals that abort never even were noticed to be sick, particularly if they were already dried off or ready to dry off. Some of these cattle will pass a mummified fetus, a brown, dried-up calf that obviously died in the cow months before. Swine may have some mummified fetuses and some normal without ever acting sick.

Calves less than a year of age may develop lepto and die without ever acting sick. Usually the only autopsy symptoms in these calves is a bladder full of red urine. Animals can also exhibit symptoms of a chronic leptospir-

(Continued on next page)



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Dates to Remember

June 1 - 12th Annual Steuben County Dairy Festival, Bath, N.Y.

June 3 - Finger Lakes Wool Market, Gouverneur, N.Y.

June 4-6 - Pennsylvania Poultry Federation Annual Conference, Pennsylvania State University, State College, Pa. Banquet, June 5 at Nittany Inn.

June 5 - Finger Lakes Wool Market, Auburn, N.Y.

June 6-7 - E.N.Y. Sheep & Wool Growers, Schaghticoke, N.Y.

June 11 - Poultry Day, College of Agriculture, University of Connecticut, Storrs, Conn.

June 11-12 - Second Biennial Frontiers in Food Science Synposium, Cornell's New York State Experimental Station, Geneva, N.Y.

June 11-15 - National Apple Institute 33rd Annual Meeting, Claremont Hotel, Berkeley, Cal.

June 12-13 - Southern Tier Sheep & Wool Growers, New Berlin, N.Y.

June 13-15 - 21st Annual Delmarva Chicken Festival and National Chicken Cooking Contest, Onancock, Virginia. Sponsored by Delmarva Poultry Industry, Inc., Delaware.

June 16 - New York Flying Farmers Annual Breakfast, Bickford Airport, LeRoy, N.Y.

June 16-19 - American Dairy Science Association Annual Meeting, Ohio State University, Columbus, Ohio.

June 16-20 - Neppco Egg Quality School, University of Maryland, College Park, Md.

June 17-18 - 45th Annual Meeting National Livestock and Meat Board, Sherman House, Chicago, Ill.

June 25-26 - New York Poultrymen's Get-Together, Morrison Hall, Cornell University, Ithaca, N.Y.

June 25-26 - 83rd Annual Convention Holstein-Friesian Association of America, Sheraton Schroeder Hotel, Milwaukee, Wisc.

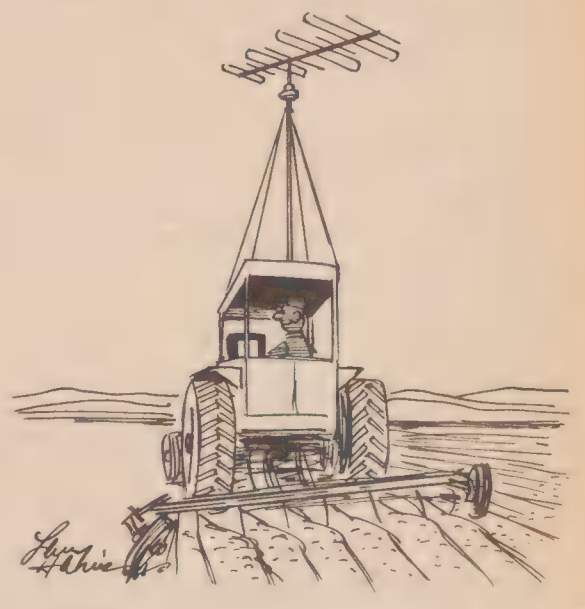
June 25-28 - Conference of Association of Teachers of Agriculture in New York, County House and Northway Inn, Syracuse, N.Y.

June 26-28 - 4-H Club Congress, Cornell University, Ithaca, N.Y.

June 27-28 - Summer Tour of The Horticultural Association of Pennsylvania, with the Erie County Pennsylvania Horticultural Association as host. Visiting fruit growers of both large and small fruits are expected to attend from all of the states bordering Pennsylvania, the New England states, and Canada. Chairman of Tour Committee, Don Campbell, North East, Pa.

July 14 - Official Dairy Goat Show sponsored by Eastern New York Dairy Goat Club, Fairgrounds, Schaghticoke, N.Y.

July 26-28 - Pioneer Gas Engine Association Inc. Annual Reunion, Fairville, 4 miles north of Newark, N.Y.



Mettler

(Continued from page 8)

sis infection that lasts for days or weeks, though this is not common.

Let the Vet Decide

Leptospirosis immunization can be given to all animals in the herd, pregnant or open, with safety. One must be aware of the danger of anaphylactic shock when using any biologic. Your veterinarian is aware of this, and carries injectables with him to treat anaphylactic reactions if they occur. These reactions are rare, but are mentioned here so you will know they can happen, and that your veterinarian is prepared for them. There are many bargain lepto bacterins on the market. These are more apt to cause anaphylactic shock, and may or may not create a solid immunity for a full year.

Your veterinarian will use the bacterin that he knows from experience is the safest, and also apt to last the longest. Most veterinarians recommend repeating lepto immunization annually. I feel that the spring is the best time to do stabled cattle, since it is primarily a pasture disease. In beef or loose-house cattle any time of year is satisfactory as long as no more than a year elapses between applications.

I hope you do not have cause to feel "fey" this June, but if you have reason to suspect that lepto may strike your herd, immunization will at least give you one less thing to be concerned about.



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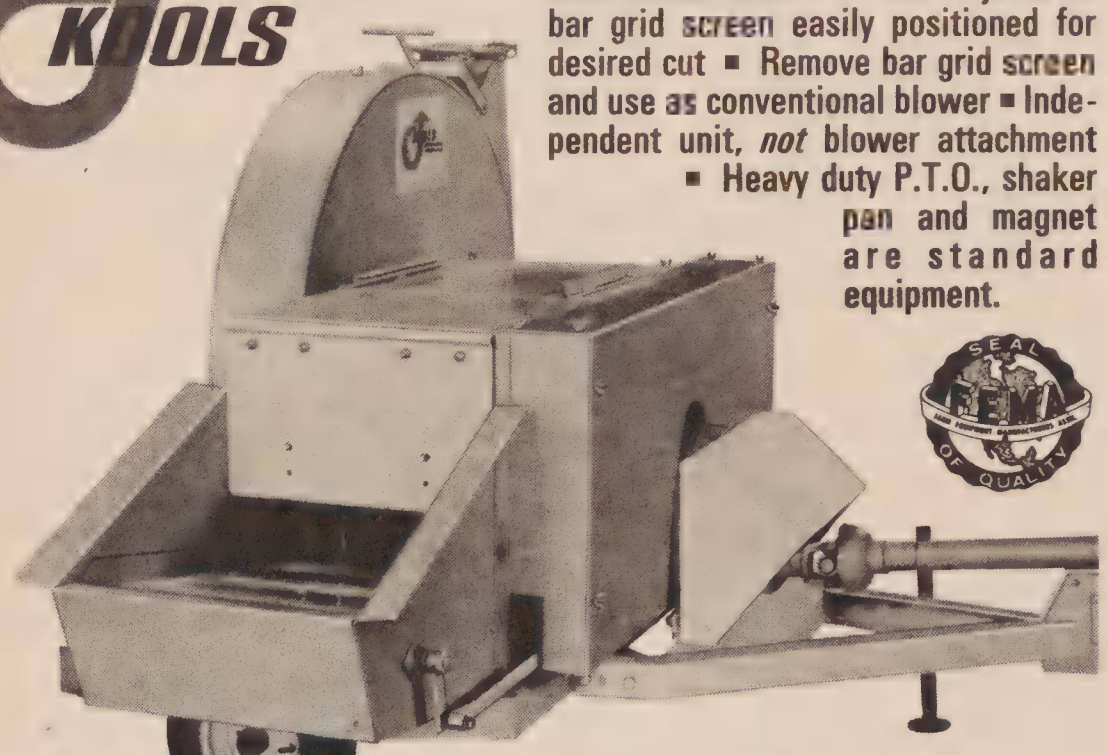
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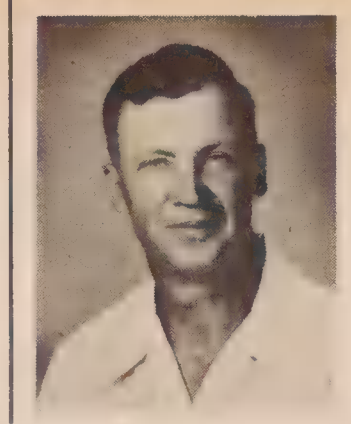
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Gayway Farm Notes

by HAROLD HAWLEY

ALFALFA WEEVIL

By the time the necessary spray is applied to protect alfalfa stands, the cost per acre will have been increased somewhat. Likewise, if fertilizer is applied at recommended rates, another sizable investment is in the works. Neither of these costs, or both taken together, will hurt anyone if the stand is thick enough. By this I mean that a thick stand will give a big tonnage response to fertilizer; a big tonnage per acre can easily absorb the cost of spray and fertilizer. A thin, poor stand will not respond so markedly to fertilizer, and the cost per ton for spray and fertilizer becomes prohibitive.

All this merely points out a necessary change which many of us must make in our alfalfa-growing practices. No longer will an extensive hay-growing procedure be profitable. To make money with alfalfa we will handle it more intensively. This means thick stands of pure alfalfa fed frequently and heavily, with stands ripped up as soon as they thin out noticeably. Ideally, these stands will be cut early and often, yields will be high, and the extra costs of weevil control will not increase the per ton cost seriously. The cost per ton of hay to control weevil on thin, low-yielding stands will rule it out.

This push to get thick stands may hasten the switch to clear seeding. Too often, it seems seedings made with companion crops suffer from the competition.

We aren't going all the way this year. Last year's experience with clear-seeded alfalfa was neither good nor bad. We have a good stand but the cost of weed and spittlebug control was too high. We will try some each way for another year. In any case, the rate of seeding and fertilization will be geared toward a thick, vigorous stand.

HIGHER CLASS III PRICES

The increase in Class 3 price may have been a welcome move to many, but it is most disturbing to this dairyman. Government purchases were already increasing rapidly and commercial consumption had declined faster than production (−4% and −5% from 1966 to 1967). Secretary of Agriculture Freeman said the support prices were raised to insure adequate supplies of milk because "milk production in the past three years has dropped from a record level of 127 billion pounds in 1964 to 119 billion pounds in 1967." It's hard to worry about supplies not being adequate when government purchases in 1967 were 6.5% of total milk marketings.

How will the increased supports affect us? This will depend on whether the increased price brings about more production and possibly lower consumption. If milk supplies do increase beyond demand, this whole thing could work against us. I keep remembering that Secretary Freeman said at the 1968 annual meeting of the Maryland-Virginia Milk Producer's Association, "I became convinced long ago . . . and remain so today . . . that the best solution to the problem of raising prices . . . only to lose consumption . . . is to develop an effective direct payment program."

How do you like the sound of that one? Under the pressure for cheap food (consumers outnumber farmers 96 to 4) prices to consumers would be kept low while dairymen would get additional payment from the Government. If such a program were adopted, the dairy industry would only be a skip and a jump away from being a public utility with production and prices regulated for the benefit of consumers. Best we keep our eye on this one, because someone may have thrown us a curve.

CLASS I BASE PLAN

The recent information meetings held by the co-op leaders to explain the features of the Class I base plan seem to demonstrate that few dairymen in New York State are interested in the plan. There may be several reasons for their attitude.

The experiences of farmers in the Puget Sound Class I base plan undoubtedly has convinced many that such a plan is not for them. Imagine producers selling out, coming back in as "new producers," and being given a base! The expansion of the market went almost entirely to "new producers." I can't believe anyone would pay for milk promotion if the increase in sales would only benefit someone else. Nor would he knowingly enter into a plan which might work out this way.

Most New York dairymen recognize the need for growth, change, and flexibility, and wisely shy away from the kind of controls that most base plans to date would impose.

It has become clear that base plans do not cause a cut back in production. They do, however,

(Continued on page 11)

put a price on the right to market, and they do reduce the ease with which farmers can make adjustments to market needs and to their own situation. They have real appeal to the man who expects to sell out soon. We have not heard the last of them.

PRICING CLASS III

At first glance, everything favors making users of dairy products (solids, dried skim, etc.) for filled milk pay the Class I price for them. There is just one little flaw in this. The principal areas of production of powdered and dried skim are the Wisconsin, Minnesota areas. Many, many of these producers have never sold milk for anything but manufacturing uses. At $3.54 per hundredweight they do all right as their costs are much lower than ours. Now, let's give them Class I prices for part of their production. What happens? The goldarnedest increase in production ever heard.

Some may favor the higher price and run the risk of a big production increase. I'm just as convinced this is short-sighted and will end up being a costly mistake.

If and when a big jump in production occurred out there, who is foolish enough to say that we wouldn't suffer here in this market? Better we sell all the fluid milk we can and price dairy derivatives for filled milk at the manufactured prices.

CHEMICAL DRINK

Some time ago I registered protest at any mention or use of the word milk in connection with an artificial non-dairy drink. I had no proposal for a name, but now think that to call it a "chemical drink" would be fine. Certainly doesn't sound too appetizing, does it?

Our Congressman, Sam Stratton, is trying to give us further help. He has introduced a bill which would make it illegal to use the same shape container for chemical drinks as for dairy products. This way there will be no confusion in the mind of the purchaser as to what she is getting. Thank you, Congressman!

DO IT OURSELVES!

One of the more thought-provoking things we've heard lately was the report that the Jewel Co. stores in the Chicago area (several hundred in the chain) will soon be selling eggs produced by Jewel Co. farms.

It's not so unusual to hear of industry trying its hand at farming. In California we hear of a chain store's decision to produce the milk it sells over the counter. Several meat packing outfits are in the cattle feeding business. Other business firms not related to food processing or marketing own agricultural production resources . . . land and/or livestock. Some of these operations are either a hedge against inflation or have an income tax angle.

The Jewel Co. story has none of these characteristics. Pure and simple, says their spokesman, they could not consistently buy the quality of egg they wanted to handle through their stores. This is a serious indictment of poultrymen as producers and as marketers of eggs. What apparently was lacking was a farmer co-op or a private businessman with high-quality standards to assemble, candle, grade, and pack eggs in an agreed-on quantity on a contract basis for Jewel Co.

It's a darn shame for farmers to lose a market like this just for lack of recognizing the buyer's needs and meeting these needs. All too often we do this sort of thing, though; that is, produce something without real thought as to whether it is what the buyer would prefer to have offered to him or her. For quick examples, look at the struggle to get hog men to breed for bacon rather than lard-type hogs, even though everyone knew that lard was a drug on the market.

Nearer home, it was a long hard struggle to get dairymen to support legislation which allowed distributors to change the composition of milk and sell a low-fat milk.

We are on the eve of a day of real decision. The flavor of milk can be enhanced by increasing the solids. Consumers have indicated a preference for low-fat milk. A low-fat, high solids milk has increased sales in California and is just now being introduced in Illinois. Filled milk does not have limitations about its fat and solids composition. We can be sure it will be offered as consumers want it with low fat and lots of flavor. That's the way it should be marketed.

How will our milk be offered to the consumers? Hopefully, we will change the restrictions and give ourselves a break by offering people what they want so we can increase milk sales. If we don't, we can expect someone else to offer Mrs. Buyer what she wants. The day of reckoning on this one is at hand.

Editor's Note: See Page 14 for story on a **northeastern** chain going into the egg business.



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McKean County Fair, Smethport	Aug. 5–10
Butler County Farm Show, Butler	Aug. 6–10
Greene County Fair, Waynesburg	Aug. 6–10
Union County West End Fair, Millmont	Aug. 6–10
Wolf's Corners Fair, Tionesta	Aug. 7–10
Lebanon County 4-H Fair, Lebanon	Aug. 12–17
Dayton Agricultural & Mechanical Fair	Aug. 12–17
Mifflin County Youth Fair, Reedsville	Aug. 12–17
Kutztown Fair	Aug. 12–17
Stanton Community Fair, New Stanton	Aug. 12–17
Washington County Fair, Washington	Aug. 12–17
Kiwanis Community Fair, Middletown	Aug. 12–17
Wayne County Fair, Honesdale	Aug. 12–18
Morrison Cove Dairy Show, Martinsburg	Aug. 13–16
Youngsville-Warren County Fair, Youngsville	Aug. 13–17
Adams County Fair, Abbottstown	Aug. 13–17
Potter County Fair, Millport	Aug. 13–17
Lawrence County Farm Show, New Castle	Aug. 13–17
Juniata County 4-H Fair, Port Royal	Aug. 14–16
Delaware Valley Fair & Farm Show, Milford	Aug. 14–17
Venango County 4-H Fair, Franklin	Aug. 14–17
Rostraver Township Community Fair, Belle Vernon	Aug. 15–17
Middletown Grange Fair, Newtown	Aug. 15–17
Westmoreland County Fair, Greensburg	Aug. 18–24
Scott Township Community Fair, Olyphant	Aug. 19–22
Carlisle Fair	Aug. 19–24
Crawford County Fair, Meadville	Aug. 19–24
Franklin County Fair, Marion	Aug. 19–24
Fulton County Fair, McConnellsburg	Aug. 19–24
Huntington County Fair, Huntington	Aug. 19–24
Somerset County Fair, Meyersdale	Aug. 19–24
Tioga Dairy Show, Wellsboro	Aug. 20–21
Big Knob Grange Fair, Rochester	Aug. 21–24
Blue Valley Farm Show, Bangor	Aug. 21–24
Hookstown Grange Fair	Aug. 21–24
Allegheny County Fair & Western Exposition, Library	Aug. 21–25
Harford Fair	Aug. 22–24
Transfer Harvest Home Picnic	Aug. 22–24
Centre Grange Fair, Centre Hall	Aug. 22–29
Carbon County Fair, Lehighton	Aug. 25–Sept. 2
Indiana County Fair, Indiana	Aug. 26–31
Wattsburg Fair	Aug. 26–31
West End Fair, Gilbert	Aug. 27–29
Sewickley Township Community Fair, West Newton	Aug. 27–30
Bullskin Township Community Fair, Wooddale	Aug. 27–31
Green-Dreher-Sterling Fair, Newfoundland	Aug. 27–31
Sullivan County Fair, Forksville	Aug. 28–31
Great Stoneboro Fair	Aug. 29–Sept. 2
Tioga County Fair, Tioga	Aug. 29–Sept. 2
Bear Lake Labor Day Program, Bear Lake	Aug. 30–Sept. 2
Juniata County Fair, Port Royal	Aug. 30–Sept. 7
Ox Hill Community Fair, Home	Sept. 2–5
Cambria County Fair, Ebensburg	Sept. 2–9
South Mountain Fair, Arendtsville	Sept. 3–7
Waterford Free Fair	Sept. 4–7
Pymatuning Joint Community Fair, Jamestown	Sept. 4–7
Spartansburg Community Fair	Sept. 5–7
Upper Perkiomen Valley Community Fair, East Greenville	Sept. 5–7
York Inter-State Fair	Sept. 10–14
Albion Community Fair	Sept. 11–14
Green Township Community Fair, Commodore	Sept. 11–14
Cochranton Community Fair,	Sept. 11–14
West Alexander Fair	Sept. 11–14
Berlin Brothersvalley Community Fair, Berlin	Sept. 12–14
Gratz Fair	Sept. 15–21
Bellwood-Antis Community Farm Show, Bellwood	Sept. 17–19
Southern Lancaster County Community Fair, Quarryville	Sept. 18–20
Beaver Community Fair, Beaver Springs	Sept. 18–21
Turbotville Community Fair	Sept. 18–21
Harmony Grange Fair, Westover	Sept. 18–21
Claysburg Community Farm & Flower Show	Sept. 19–21
North East Community Fair	Sept. 19–21
Williamsburg Community Farm Show	Sept. 23–26
Penna. All-American Dairy Show, Farm Show Building, Harrisburg	Sept. 23–27
Penna. Black & White Show, Farm Show Building, Harrisburg	Sept. 24
Bloomsburg Fair	Sept. 23–28
West Lampeter Community Fair, Lampeter	Sept. 25–27
The Ephrata Fair	Sept. 25–28
Sinking Valley Community Farm Show, Hollidaysburg	Sept. 25–28
Oley Valley Community Fair, Oley	Sept. 26–28
Morrison Cove Community Fair, Martinsburg	Oct. 1–4
Montour-DeLong Community Fair, Washingtonville	Oct. 2–5
New Holland Farmers Fair	Oct. 2–5
Hollidaysburg Community Farm Show	Oct. 7–10
Manheim Community Farm Show	Oct. 9–11
Unionville Community Fair	Oct. 10–12
Tri-Valley Community Fair, Hegins	Oct. 10–13
Dillsburg Community Fair	Oct. 17–19
Penna. Livestock Exposition, Farm Show Bldg., Harrisburg	Nov. 9–16
Uniontown Poultry & Farm Products Show	Nov. 28–30
Penna. Farm Show, Farm Show Building, Harrisburg	Jan. 13–17, 1969



NEW OFFICERS

A New York dairyman, J. Marlin White of Marathon, has been elected president of the **American Milking Shorthorn Society.** The Society is composed of breeders of the dual-purpose breed across the United States, and during his term Mr. White will travel widely to help promote the breed. Incidentally, the White herd is one of the most outstanding in the nation.

Elected president of the **New York Angus Association** was John Lawrence, Sherburne, New York, who replaces retiring president Jesse Bontecou of Millbrook. Sayre McCloud of Phelps was elected vice-president, and John I. Miller, Ithaca, was re-elected secretary-treasurer. Elected to the board of directors were Phillip Taylor, Lawtons, and Harold Brown, Brant Lake.

It's not too late

Banvel® herbicide can be sprayed profitably even when field corn is 36 inches tall.

A pigweed every 5 inches can cut your yields 25%. Spray Banvel over the top of corn plants. The sooner you spray the more profit you'll make. Get cleaner harvests too.

Banvel gets the broadleaf weeds 2,4-D misses. Every major broadleaf weed likely to cause trouble can be controlled. Weeds as tough as Canada thistle, pigweeds, ragweeds, smartweeds, velvetleaf, lambsquarter, spurge, and the other tough ones. Order economical Banvel to save, time, labor, moisture and soil nutrients. Avoid tangling and damage to equipment at harvest. Boost your yields and get bonus profits.

Banvel does not make corn brittle, neither has it been known to irritate human skin.

VELSICOL BANVEL® HERBICIDE

Velsicol Chemical Corporation · 341 E. Ohio St., Chicago, Ill. 60611

THE GROWING WORLD OF VELSICOL

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NEW! FEEDS BIG AND EVEN

The bigger the auger, the greater the capacity — and the faster you feed. Jamesway's Jumbo Feeder has a 12⅜" reversible screw with a rugged 2⅜" shaft. It's the biggest feeder auger you can buy!

FULL-FLO FEED! No auger bearings to restrict feed flow. No bearings to hang up feed and cause plugging. You get trouble-free operation.

CUSHIONED AUGER SUPPORT! Auger rides on long-wearing polyethylene cushions — eliminates gaps in flighting. Smooth!

BIG CAPACITY! Jumbo handles the output of the largest volume silo unloaders, with capacity to spare.

JUMBO CONVEYING SYSTEMS, TOO! Big 14" galvanized U-troughs, 12⅜" augers, galvanized hoppers, universal joints, feed drop doors.

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JUMBO PROGRESSIVE CATTLE FEEDER



See your franchised Jamesway Power Choring dealer listed below:

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Dover Plains, Smith's Garage of Dover, Inc.
East Springfield, Homer Fassett
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Franklin, Matteson Feed & Farm Supply
Gouverneur, Jones Farm Supplies
Greenwich, Lewis G. Collins
Groton, Hewitt Bros., Inc.
Hamburg, Abbott's Richardson Milling Co., Inc.
Holcomb, Coakley Dairy Supply
Kennedy, Walker-Sprague Co.
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Piffard, C. A. Parnell
St. Johnsville, Valley Equipment Co.
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South Dayton, Ecker's Equipment
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Unadilla, Earl's Poultry Farm
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Weedsport, Blumer Supply
Westtown, Demberg Brothers
Whitney Point, Hornberger Equipment Co.

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AA-068

EMPIRE FARM DAYS Canastota, N.Y. Aug. 6,7,8.

The big outdoor farm show of the Northeast will feature everything new in farming . . . chemicals, equipment, materials handling, homestead improvement, buildings, and much more.

NOTICE

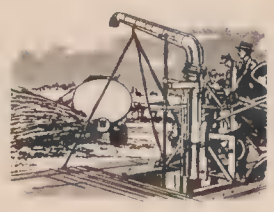
– Problem pits invited –
We will empty any pit – Regardless of its present condition.

"We Will Prove It"

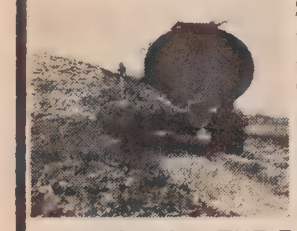
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WE CAN HANDLE PROBLEM PITS. STANDARD PITS ARE THAT MUCH EASIER. PITS CAN BE OF ANY SIZE OR SHAPE. LET US EMPTY YOURS NOW! – Just fill out the attached card.



A powerful homogenator with over 11 years of engineering experience in the handling of fluid manure. Will pump 10½ tons per min. with pit depths 4'-12'. Portable, simple, rugged AND IT WORKS.



Sahlstrom fluid manure tank is mounted on flat face, full flotation tires. Tank is long, low, oval and baffled for safe high speed movement. Sizes - 1050 gal., 1400 gal., 2200 gal.

SAHLSTROM, THE PIONEERS OF FLUID MANURE HANDLING SYSTEMS!

Sahlstrom Mfg. Co., Inc., Box 589, Bennington, Vt. 05201
Gentlemen: ☐ Please pump my pit. ☐ I would like more information on fluid manure handling.
No. of cows _____ No. of acres _____
Name _____
(Please print)
Address _____
State _____ Zip _____ Phone _____
I do _____ do not _____ have a fluid manure system.



This 448 x 34-foot brooder building houses 33,000 growing birds. Eighteen ventilators on top of building tie in with 36-inch ventilating fans set into ceiling. Another brooder building of same size will be built.

Supermarket chain begins
GIANT EGG COMPLEX

by Bob Cudworth

"**WE FEEL** our new operation will help the entire egg industry in this area because we are going to merchandise eggs as other grocery items are promoted . . . we do not intend to cut prices . . . and we plan to concentrate on egg freshness, quality and uniformity for our customers."

These were among points outlined by John V. Wright, vice president and secretary of Wegmans Food Markets Inc., in discussing the firm's automated egg production complex near Wolcott, New York.

Immediate plans call for two brooder houses holding 66,000 chicks, six layer houses holding a total of 180,000 birds, and an egg processing and packaging building to provide eggs for the Rochester-based chain's 26 supermarkets. Plans call for an ultimate-sized operation of 360,000 layers.

Birds will be in cages from the day they arrive at the farm. Feeders and waterers will be automatic. Eggs will be carried on belts from the cages to the packaging building. Here they will be washed, put in flats and kept overnight at controlled temperature and humidity. It will take only 45 to 70 minutes for an egg to travel automatically from the laying house to the washing operation.

The following morning they will be candled, graded, packaged and loaded onto trucks for delivery to stores. Nowhere along the line will they need to be touched by hand.

Plans call for each Wegmans store to get fresh eggs at least every day — oftentimes within 24 hours after they are laid. First eggs to be cartoned at the farm will be about August 1.

Reasons

How did this complex come into being?

Mr. Wright explained, "Up to this time our eggs have been supplied to our grading and packaging facilities in Rochester by eight producers. We pointed out to them that a supermarket chain needs to keep growing, and that we expected our egg needs would be increasing by at least 10 percent each year. We have always made it a big point to sell only freshly-produced, nearby eggs . . . none from the South or Midwest.

"When we could not get sufficient commitment from our present producers to supply our increasing needs . . . which we expect to be doubled in a relatively short time . . . we had to make a decision. Should we have as many as 16 different producers, with a possible 16 strains of birds, 16 different water supplies, 16 different feeds, and 16 different sets of management?

"Or should we produce our own eggs to achieve the quality, freshness, and uniformity that we wanted to supply our customers? We decided to produce our own.

Big Sale

"We sell a lot of eggs, and have learned that it is one of the basic commodities where customers look for quality. So, with constant uniform quality we feel we can sell a lot more eggs by using some of the promotion techniques common with other grocery items," Mr. Wright pointed out.

"For example, we expect to use TV — even to educating people on what a really fresh egg is . . . and do things to emphasize the nutrition and good buys eggs constitute. We are planning new foam-type cartons with eye appeal and other utilitarian uses, we are also planning new convenience-type display cases to add to sales appeal. We think some new promotion techniques will do a better job of helping to sell eggs than some of the old methods, such as putting egg recipes on or in an egg carton and expecting them to do the selling job.

"After studying the whole egg picture pretty carefully — including visiting large egg operations in California and other states — it is apparent there is a certain amount of complacency in the

(Continued on next page)

egg industry of the Northeast.

"We don't feel that eggs should have to be shipped in from the South or Midwest . . . and that our own nearby egg industry can better serve our needs for fresh eggs — especially if we use some promotion."

Philip Wadsworth, who studied at Cornell and has been in the egg business most of his adult life, is farm manager. The farm of 400 acres is located on Wadsworth Road, three miles north of Wolcott. First eggs from the farm began in May.

The management practice here is to put day-old chicks in starter-grower cages the day they arrive to help eliminate later stresses. The multiple-bird cages are in a stair-step arrangement, with the baby chicks placed in top cages at the start. At 4½ weeks, half of the pullets are put in the bottom cages.

The 448 x 34-foot brooder building is divided in two parts, with four rows of cages per side of each 204-foot row. Heat is provided from 2-inch hot water pipes between the cages. Hart water cups, automatic feeders and light dimmers are other features.

Eighteen 36-inch ventilating fans are placed in the ceiling, and these have the capacity to provide 4-¾ cfm's per bird. "Ventilation is tremendously efficient this way," points out Phil, "and although we may lose some heat on occasion, we have almost no odor in the house and feel it will be a tremendous help to bird health."

Manure pits are scraped out by tractor because automatic cleaners would cause problems in the building. Plans have already been made to sell manure to fruit growers in the area. This, of course, will be a key feature as additional buildings are put in operation.

Vestibule windows have been placed in the middle of the border building so that visitors may view the house operation without actually being with the birds. A vestibule window is also planned for one end of the next laying house to be completed so that visitors can see the eggs passing through on the egg belt.

The pullets are moved from the starter-grower cages to the laying house cages at 20 weeks of age. They are housed four birds to each 12 x 18-inch cage. The birds do not have to be debeaked in this period because they were debeaked at 6-days old in what Phil Wadsworth describes as a lasting, effective job and an ideal time to get it out of the way. It eliminates the stress usually caused by later debeaking, he adds.

Each brooder house will be capable of supplying birds for three laying houses. The laying houses, located nearly one mile from the brooder houses, are 500 x 42-feet, with capacity for 30,000 birds each.

The laying houses are being built in line so that the egg belt system from each house will be able to tie in smoothly with the belt line to the packaging building.

Expansion Planned

Plans for the initial complex call for two brooder houses supplying the six laying houses of 180,000 total capacity. Future expansion plans call for four brooder houses of 132,000-chick capacity supplying 12 laying houses of 360,000-bird capacity.

Power requirements will be quite extensive at the farms, so 480-volt service is being wired to each building. Complete standby power generation is provided throughout the farm.

An interesting feature is that plans all along the way have been cleared with the Wolcott Town Board, enthusiastic boosters of the project. Wegmans Farm will employ some 25 full-time persons when operating at full capacity.

Wegmans has 20 supermarkets in the Rochester metropolitan area, as well as stores in Canandaigua, Hornell, Geneva, Scottsville, Newark, and Brockport. Two stores for the Syracuse area are also planned in the near future by this firm, which has been in business for about 50 years.

Mr. Wright emphasized that the supermarket business is tremendously competitive and fast-changing . . . and that food products must be of top quality, effectively merchandised.

"We are doing everything possible to provide our customers with fresh, top-quality eggs — and we are going to tell them why eggs from this area are a better buy for them than eggs shipped in from other parts of the country.

"We feel that 'under-consumption', not 'over-production' is the key to the chronic low price egg surplus, and we are hoping that strong merchandising will help us and the rest of the egg industry in the East," said Mr. Wright.

HORSE COURSES

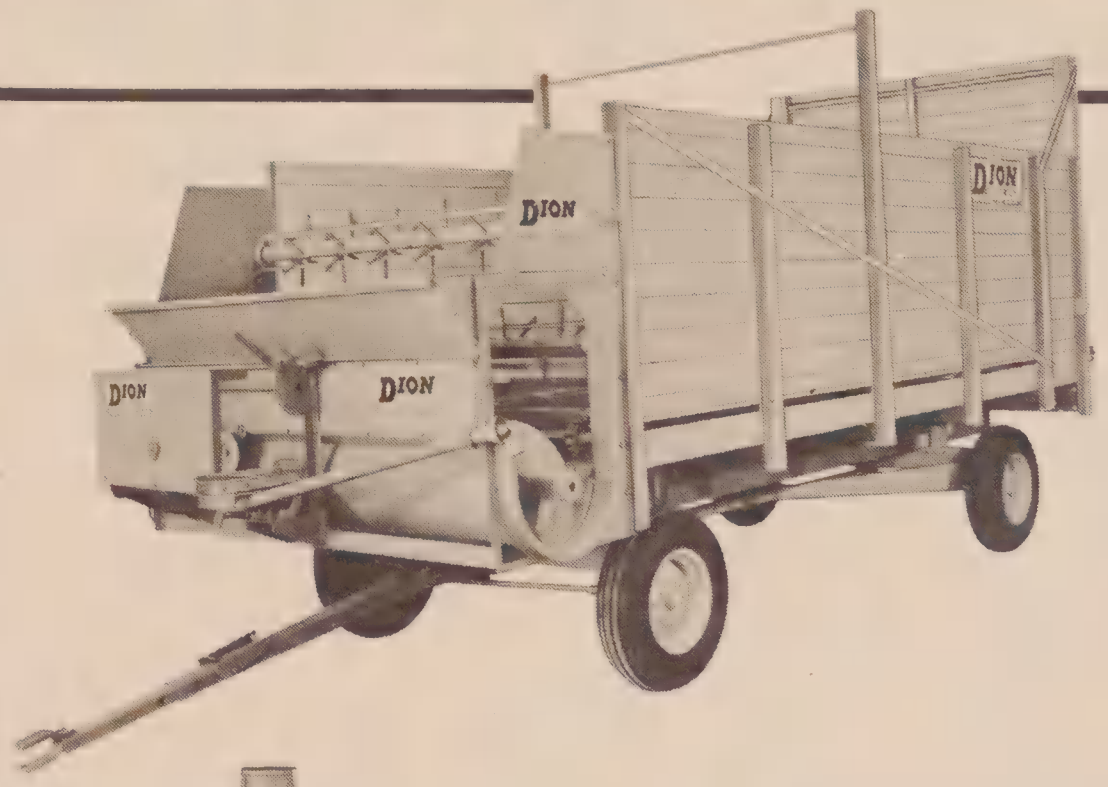
A Light Horse Husbandry course will be offered in a special summer session starting July 1 and ending July 19, 1968. If interested contact:

Division of Summer Session
State University of New York
Agricultural & Technical College
Cobleskill, New York 12043

At the University of Connecticut an intensive course in horseshoeing will be held July 8 to 19. Applications must be in June 12, and should be addressed to:

Dr. John Brand
Ratcliffe Hicks School of Agriculture
University of Connecticut
Storrs, Connecticut 06268

the first six reasons to put DION to work handling forage on your farm





Here's the second member of a great team: the DION forage blower. 59" diameter. Handles more haylage faster, without plugging. A one-man unloading operation!

With the DION forage box, you get:

1. 12 speeds forward. Handle any forage crop fast and easily. Uniform loading increases the capacity of any blower and eliminates plugging.
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DION Send me a free illustrated folder about the DION self-unloading forage box, with the word about how it may cut forage-handling costs for me.

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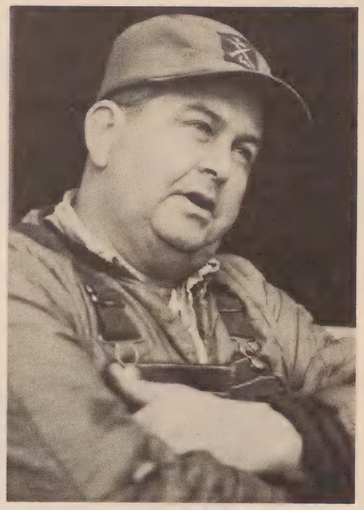
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☐ How about including facts on the DION forage blower, too?

I am a ☐ Dairyman ☐ Dealer ☐ Student AAJ

"I had been stopping to unplug four times per load ...until I got my John Deere Forage Harvester"



That's what Herb Whitaker of Brooktondale, N.Y., says about his 34

"When I started filling silo last year, I was getting off the tractor to unplug the head an average of four times per load," this 100-cow dairyman explains.

Mr. Whitaker continues, "Corn around here grew awfully big . . . with the ears about 5-foot up. It was so tall it tipped away from the machine and bunched up instead of feeding in. That meant I had to get off and push it back in. That's when a man can get hurt.

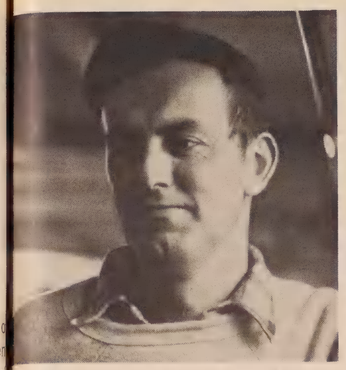
"Then I got the 34 . . . cut 40 acres and never got off the tractor once. Design of the head is the reason it doesn't plug. Regular gathering chains just don't grab hold of the stalk the way belts do.

"Once the gathering belts get hold o a stalk, it's going in. Feeds real even Anything sideways is pulled right bac into line and taken in. This lack of plug ging is a real safety feature. Does a ver good job of picking up downed corn.

"Kind of uncanny how quiet it runs Pretty simple, too. Nice to be able to loo over it and see into the wagon. Not muc on the 34 to cover up your view.

"I'm very satisfied. This 34 really does the job. It's an amazing machine. I'd hate to get along without it."

n change heads by myself a few minutes"



Real easy to change from grass to corn. hange heads in just a few minutes," ates John Delp, of Montrose, Pa.

Never had my 34 plug up yet. Didn't esitate at all in 6-foot sudan grass. No unching in corn. Once the belts grab there's no way for it to get away. No uble picking up downed rows, where ssels went in head first.

"Knife sharpener is one that works od. I had to keep adjusting the one on my her chopper. This one holds the same dge all the time because it can't move.

"This is a heavier machine. Bigger es and more width. Holds the row bet- on sidehills.

"It's quieter, definitely. Always nice t to have a lot of noise. Few moving arts . . . just that much less to wear."

"More capacity than I have tractor power"



"My 38 Harvester will take a lot of stuff. It has more capacity than I have tractor power . . . and I used a 90-h.p. tractor," says Steve Lamphier of Locke, N.Y.

"I like the straight line of pull. Most of my land is hilly . . . really makes a difference to have the harvester and wagon tongues in line.

"Pickup worked real slick. Takes a wider swath than any other I've used. Cleans it up good . . . even brings windrow in from side. My sudan grew up to 8 feet tall . . . pretty sloppy windrows, it was so big. I don't think I could have chopped it with another machine."

As these owners testify, farmers throughout the Northeast are sold on their John Deere 34 and 38 Forage Harvesters. Check with your neighbors.

Truly, the economical 34 has set the standard for low-cost forage harvesters...while the deluxe 38 outperforms all other heavy-duty machines.

Visit your John Deere dealer and give the 34 and 38 the ol' eagle eye. Inside and out. From snout to spout. You won't have to look long to be convinced these forage harvesters are a cut above the rest . . . any way you compare 'em.

Good silage comes easier, more efficiently when you team up a new 34 or 38 with a John Deere tractor and self-unloading wagons sized to your individual operation. See your John Deere dealer soon, so you'll be all set for the busy silo filling season that's just ahead.

Short on ready cash? Don't let that hold you back. The practical John Deere Credit Plan is as modern to financing as the 34 and 38 are to silage-making. Ask your John Deere dealer about it.

JOHN DEERE
Moline, Illinois 61265



The low-cost 34 features a spiral-knife, cut-and-throw cylinder cutterhead.





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FLIES



Control now with

PURINA DAIRY SPRAYS

for increased production later.

Flies bother cows. Each season they may cost you $42 per cow in reduced milk production. A small investment now in Purina Dairy Sprays could save you dollars *later*.

Purina Dairy Sprays contain fast-killing, long-acting fly killers—plus effective fly repellents. They can be used for spraying, misting, or in back rubbers. Each approved for use on milking cows.

Protect dairy profits . . . kill flies with Purina Dairy Spray—Purina Dairy Spray Concentrate and Purina Dairy Spray Special from your Purina dealer in quarts, gallons or drums.

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PURINA HEALTH PRODUCTS



Probably no scenery in the world is more thrilling than the beautiful snow-capped Swiss Alps.

TWO WONDERFUL TOURS!

Everybody dreams of some day taking that "trip of a lifetime," and either our Grand European Tour (September 3–October 3) or our Holiday in Spain and Portugal (September 16–October 7) could be **your** dream come true! Just think of going abroad with a friendly American Agriculturist party and seeing fascinating places you have always heard about.

Our official tour directors will again be the Travel Service Bureau of Needham, Massachusetts, and together we have arranged two trips that you will find hard to beat in the thrilling sights you will see, the quality of the accommodations, and the reasonable prices.

Following are a few highlights of our Grand European Tour:

England – We'll explore old London, visit Windsor Castle and Hampton Court Palace, and travel by bus through the English countryside to Stratford-on-Avon and Oxford. Two other famous sights we'll see are famed Salisbury Cathedral and historic Stonehenge, the mysterious monument built by the Druids long ago.

Holland – In this land of neat villages, dykes, and fields of flowers, we'll visit The Hague, Aalsmeer, Amsterdam, Volendam, and Rijks Museum.

Germany and Austria – We'll cruise up the Rhine River and see ancient castles and steep hillsides covered with vineyards. Our travels will also take us to Cologne, Rothenburg, Augsburg, and Innsbruck.

Italy – In this wonderful country we will visit Cortina, Venice (where we'll do our sightseeing by gondola), Florence, Naples, Pompeii, Rome, Pisa, and Milan.

Switzerland – We'll see Lucerne with its marvelous view of the snow-capped Alps and the capital city of Bern.

France – We'll stop at Fontainebleau before going on to Paris, probably Europe's most exciting city. A few of the famous places we'll see here are the Louvre, Montmartre, Left Bank, and Versailles. We leave for home from Cherbourg on October 2.

Spain and Portugal

Every travel article tells you to visit these countries while they are still "unspoiled," and we also urge you to come along with us this year. Also, it seems that your travel dollars go farther here than in most places.

The capital city of Madrid is our first stop, and we'll spend three days in this area, taking side excursions to ancient Toledo, Segovia in the heart of old Castile, and to Escorial where we visit the massive monastery.

Spain's second city, Barcelona, comes next and then delightful Palma on the Island of Majorca. Here we'll relax in the sun, swim, and enjoy this famous vacation spot. Just a few of the other fascinating places we will visit are Granada, Gibraltar, Torremolinos, Seville, Cadiz, Lisbon, and the seaside resort of Estoril, favorite with Europe's royalty for centuries.

An exciting special feature has been added to our tour this year when we cross the Straits of Gibraltar and the Mediterranean for a two-day visit to Tangier, Morocco, on the African coast. Sightseeing here will include Cape Sportel Lighthouse, the Caves of Hercules, and ruins of the ancient Phoenician city of Cotta. We'll enjoy a Moroccan dinner and mint tea in a Moorish cafe.

Alaska and the Pacific Northwest

As this article is written, it is still possible to join our Pacific Northwest Tour (July 27 to Au-

(Continued on next page)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me, without obligation on my part, the following tour itineraries:

Grand European _____ Spain–Portugal _____

Alaska _____ Northwest Holiday _____

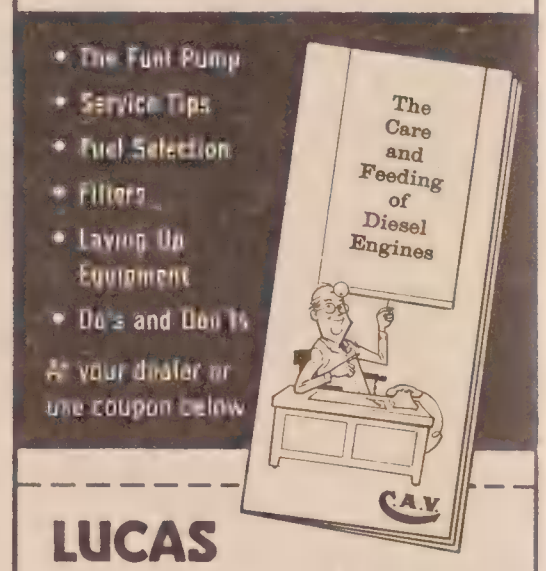
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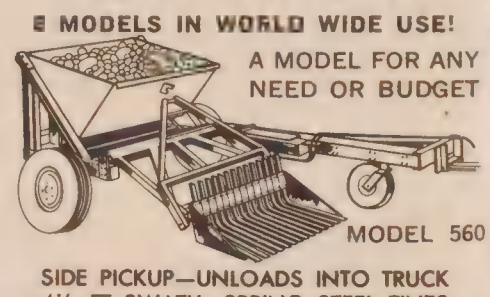


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by Robert Clingan

FAITH IS WHERE THE ACTION IS

When all of us were in the grades our teachers taught us to diagram sentences and classify verbs. Verbs were separated into those that indicated possession of qualities and those that described action.

"Having faith" was never considered a phrase with the present tense of an active or transitive verb. It was never considered a phrase describing action, or placing a person's life "where the action is."

Yet, when we go beyond the analysis of words and sentences to the experience of religious faith in its highest and deepest sense, it always does just that. The scriptures tell us that Abraham was called out to venture in faith for God in a land he did not know. When Martin Luther stumbled upon the doctrine of "justification by faith" he became a firebrand, and initiated a whole series of events that shook the religious institutions of his day. Faith is the great initiator; it is faith that sets men free from the inner division that divides their souls and paralyzes their lives. Faith sends men forth with a gleam in their eyes, a quiver in their voices, and an inner vision of creating a better community, a better nation, and a better world.

In the city of Cleveland, Ohio, there is a statue to such a public benefactor, on its base these inspiring words:

"He found us leaderless and blind;
He left a city with a civic mind."

That is what faith always does.

This is even true of the inner issues of personality and spiritual healing. The most powerful expression of faith that Jesus is recorded as having given people in the Bible is the faith that overcomes their personal infirmities, disabilities, afflictions, and weaknesses. In almost every instance of spiritual healing, he asked the person to be healed to do something as an act of his own participation and faith. A blind person had his eyes packed with clay and was told to wash them and see. The crippled man was told to rise and walk. The bed patient carried to him was told to take up his bed and be on his way. The lepers were told to go to the authorities for proof of their healing and permission to return to their homes. In other words, "Go" . . . 'Do" . . . "and be healed." This action affirmed their faith, proved it was there, and deepened it as they themselves moved toward its fulfillment.

All this suggests that faith is posture, direction, and movement rooted in the trust and confidence of those who will act out the promises of God. Faith is where the action is.

The posture of faith is not primarily the knees of prayer . . . but the toes and heels, hands and arms of those who earnestly and selflessly try to do the will of God. Perhaps the reason there is so little faith in the world today is because so few attempt to do very much for God, or to fulfill his will in their daily lives.

The great faith chapter in the Bible, Hebrews 11, begins with: "Now faith is the assurance of things hoped for and the evidence of things not seen." It is concluded with the first verse of the following chapter, which contains the phrase: "Let us run with perseverence the race that is set before us." Faith is where the action is!

Tour

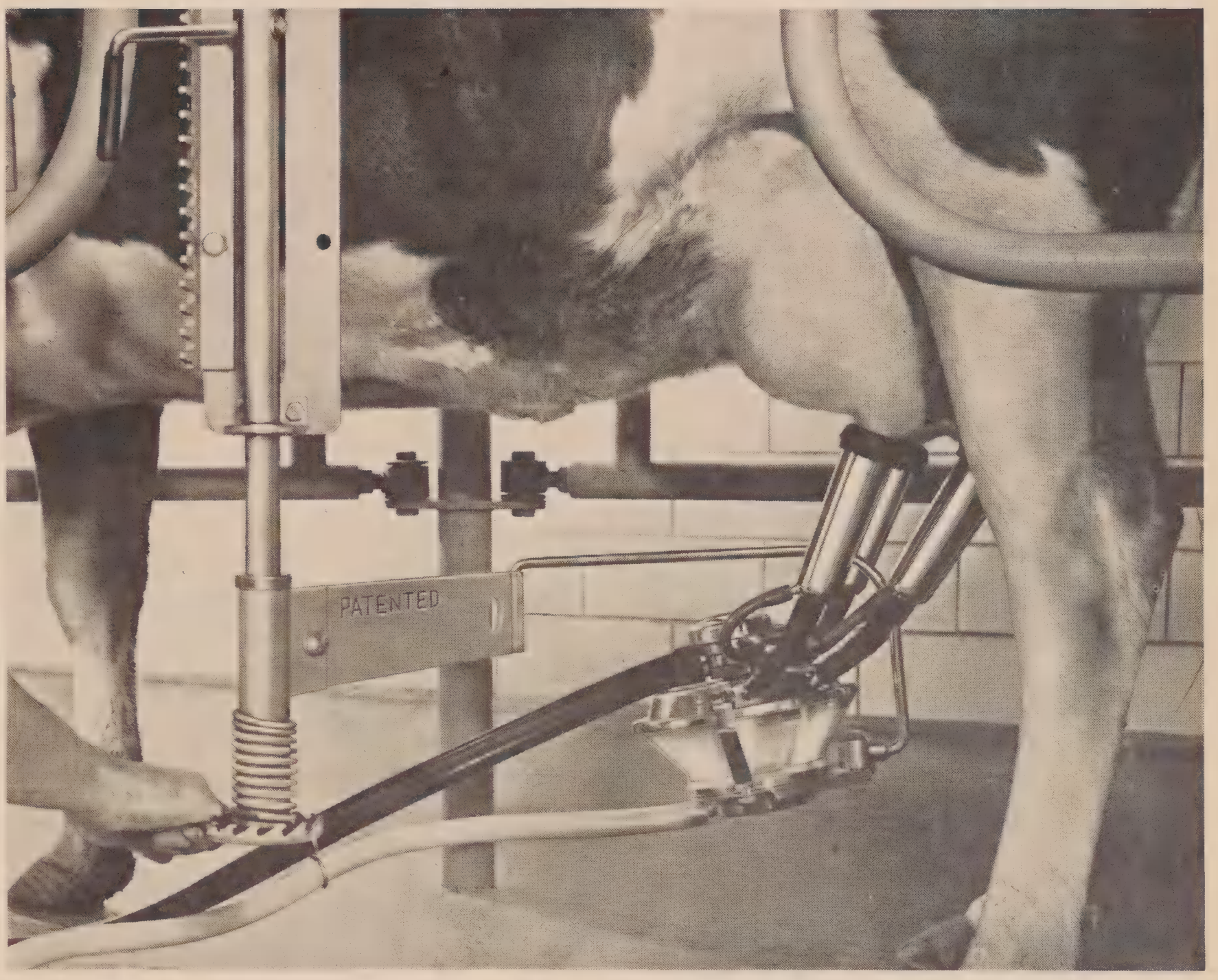
(Continued from page 18)

gust 14) or our Alaskan Holiday (August 11–24).

A few of the places we will visit on our vacation in the Northwest are Salt Lake City, Vancouver and Victoria in British Columbia, the Olympic Peninsula, Seattle and Mount Rainier, the Portland area which includes beautiful Columbia River Highway, Multnomah Falls, Bonneville Dam and Mount Hood, Crater Lake, and the famous, well-loved sights of San Francisco.

On our Alaskan Holiday, we will also visit Victoria, cruise the beautiful Inside Passage to Juneau, and see Skagway, Fairbanks, Mt. McKinley National Park, Anchorage, and have the opportunity to travel north of the Arctic Circle to visit Nome and Kotzebue, second largest Eskimo village in Alaska.

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TRENCH SILOS

by Amos Kirby
New Jersey Editor

THE BIGGEST talking subject among New Jersey dairymen these days is the trench or bunker silo. It is not only a talking subject . . . it involves action.

The bumper silage corn crop in 1967 found many dairymen with excess silage and no place to store it. Some even rented empty silos on nearby farms where dairies had long disappeared. A few had been toying with the idea of trench or bunker silos, and those who made the move found that what they did was not only good, but a profitable way to handle the excess silage.

In the words of Ivan Crouse, county agricultural agent, Salem, New Jersey, the trench or bunker silo is the biggest thing in dairying since the introduction of the free stall for stabling cattle. He suggests this method of storing silage as a supplement to any of the present types of high-rise silos.

Low Cost

The advantage of the trench or bunker systems is that they can be a supplement to existing facilities. They allow for easy expansion, and cost is low compared with either the construction or filling of present silos.

What about costs? These are approximate, depending on location and other factors. A 250-ton bunker silo using one-half inch exterior plywood for the sides may cost upwards of $1650; a trench silo may be dug for as little as $100, depending on location and availability of equipment.

A 1200-ton trench silo may be dug at a cost of about $400. One silo was lined with the tongue and groove staves of a discarded silo.

Disadvantages

As with everything else, there can be some disadvantages, including weather, especially in periods of storm. There may be more spoilage in either the trench or bunker type. Build a silo of the size that can be fed out before there is much spoilage.

Difficulty in securing a tight seal can be a loss factor, which may be overcome by lining the sides with the discarded plastic used as a cover the previous year.

Prescription

How big a silo for a 50-cow herd? Here is a prescription based on 160 days of feeding in various states. The trench or bunker should be 28 feet wide, 80 feet long, and 8 feet deep.

There may be few figures on the cost of storing, but the cost is much less than for blowing the chopped corn into an upright silo. All that is involved is dumping the corn in the trench, spreading with a front-end loader, and then packing with the tractor.

Another refinement growing in popularity is to place a concrete base in the trench. Its benefits are self-evident. There is a sound foundation for the tractor used in loading, and less dirt mixing in the silage.

Every user of the trench-type appears to be pleased with the results.

BOOMING HAY MARKET

Does a $60-a-ton market for hay have an appeal to farmers who have gone out of the dairy business? How does $110 per ton for good hay sound to a grower who has been wondering what to do with those acres that formerly furnished hay and pasture to milk cows?

The $110-a-ton hay was quoted at the Grange Commodity Conference held at Columbus, New Jersey. That was the retail price paid by horse owners on Long Island this past winter. The $60-a-ton price was quoted by a member of the New Jersey Extension Service staff as a price that could make hayland owners sit up and take notice.

The College of Agriculture, through its livestock departments, recognizes the expanding horse ownership in the State. There are now 25,000 head, and the number may go to 50,000 or even more. These horses eat hay and grain. They eat better-than-average quality . . . and when it comes to quality $60 might just look like a bargain to the owner of a highly-prized animal.

In catering to this $60 market one needs a quality product. Hay growers in New Jersey can grow that. We have the soil, the equipment, and the knowhow . . . but it may mean a change in the type of grasses grown.

One year ago I wrote in this column about this quality-hay market, and inquiries came in from many areas. It looked good then, and it looks better today!

STARTED PULLETS

Which should I buy . . . chicks or started pullets? This question, directed to one of New Jersey's wellknown operators, was answered in this manner:

"The baby chick business has gone from 100 percent baby chicks a few years ago to 80 to 90 percent started pullets today."

The shift is largely a matter of economics. Started pullets, 22 weeks of age, may cost from $1.40 to $2.00 each. A baby chick cost varies, depending on the family background and the egg-producing ability of the stock.

But regardless of the cost of the chick, this hatcheryman . . . and distributor for one of the big lines . . . states that one can still grow pullets cheaper than the started pullets, provided . . .

Keep in mind that word "provided." It involves many factors, such as: provided one has the space for developing pullets; providing one has the labor to supervise the proper development; providing that one can hold mortality to a low level.

What adds to pullet cost? There is the matter of transportation from the big pullet-growing areas; vaccinations; and other built-in services that must be included. The mere fact that as many as 80 percent of all layers grown in New Jersey are from started pullets indicates that in a high-density area (with above-average labor costs and other factors) the ready-to-lay bird is here to stay, and that it has certain economic advantages.

HUNGRY SOYBEANS

The latest comment on growing soybeans goes something like this: "Soybeans, too, get hungry."

Soybean yields can be pushed up if the growing plants have the needed food to stimulate growth and bean development. They differ little from corn. Both need potassium and phosphorus, and a pH of 6 to 6.5. Down Delaware way (where soybeans are big business) the yardstick is 35 pounds of phosphorus and 60 pounds of potash per acre. On a 17-bushel break-even point, a 10-bushel increase can triple the profit.

PELLETED FEED

The added cost of about $2 per ton looks like a good investment for dairymen. While there may be little increase in milk production . . . nor does the pelleting add to palatability . . . benefit comes in less feed wasted.

The New Jersey Agriculture College reports that some of the high-energy, low-cost byproducts feeds that are normally unpalatable can be incorporated into pelleted feed.

EARLIER SWEET CORN

Some New Jersey sweet corn growers speeded up the harvesting season. They planted sweet corn on March 28 under clear plastic, with a 58-degree soil temperature, and estimate that edible ears will be ready for market up to two weeks before corn planted at the normal time in April. This means sweet corn by June 20 to 25, instead of in the first week of July.

South Jersey vegetable growers are now beginning to base their harvesting season on the heat units required to grow the crop, and plastic is now being accepted to accomplish this trick.

FOUNDATION AWARDS

AT THE 1967 annual meeting of American Agriculturist Foundation directors, it was decided to add something new to the Foundation Award Program for the school year of 1967-68. The decision was to choose a Boy and Girl-of-the-Year and give each a check for $200 toward further education, in addition to the certificates and subscriptions to American Agriculturist-Rural New Yorker presented to all Award winners.

Teachers and principals were asked to get their nominations in to our offices on or before April 1, and from those sent in the judges picked two who seemed best to exemplify the ideals we have in mind in making the Award.

Girl-of-the-Year

Cheryl Schoenfeldt, a senior at North East High School, North East, Pennsylvania, was chosen for the Award.



Cheryl Schoenfeldt

Cheryl lives on a small farm, and her homemaking skills are particularly outstanding. She is, according to her homemaking teacher, Mrs. Rainesalo, "a charming, poised, accomplished young lady," active in the Girls Athletic Association, Latin Club, Library Club, and Future Homemakers of America. During summers and holidays Cheryl has been working hard to earn enough money so that she may train as an X-ray technician, and the Award will help her with her ambition.

Boy-of-the-Year

Frank Graves, son of Mr. and Mrs. Lester Graves of Central Square, New York, was nominated by Mr. Allen E. Bailey, teacher of vocational agriculture at Mexico Academy and Central School for the past 19 years. Frank is 18 years old, and will graduate with a Regents diploma majoring in vocational agricultures



Frank Graves

Frank has been accepted at Cobleskill Agricultural and Technical College, where he will study animal husbandry. He has been interested in farming all of his life, has worked summers and spare time with neighbors and with his uncle, and hopes ultimately to become a herdsman and own a dairy farm. During his school years he has done some fine work in cattle judging.

Frank's teachers commend his interest, sense of responsibility, courtesy, good understanding, and consistent performance. He does not actively seek leadership, but he is concerned to see that things "go."

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Dollar Guide

AN IMPROVED income tax-deferred retirement program is now available to farmers and other self-employed persons who can set aside up to 10 percent of their taxable income or $2500, whichever is smaller.

Farmers who elected to begin a retirement program must include employees who have worked for them three years or longer. Payments based on their income must be the same percentage which the farmer contributes to his own fund. An employee who works at least 20 hours a week for five months during a calendar year is considered as having worked a year.

The overall plan must be approved by the Internal Revenue Service. Invested funds may not be used as collateral, and once the program is established it must be continued. Failure to continue an established retirement program may result in heavy penalties.

EXCELLENT WAY to get more hay fast is to topdress meadows following the first cutting. Best way is to get complete soil tests, and follow recommendations. Grasses respond rapidly to nitrogen, legumes to phosphorus and potash.

EGG-TYPE CHICKS hatched in March were down 19% from March, 1967. This was 7th consecutive month's figure that was below previous year.

GRAIN FEEDING to dairy cattle still tends to be too low in early lactation, and too high later in lactation. Researchers say that grain feeding should be reduced sharply six months after freshening. Dairymen tend to average grain feeding levels, rather than correlate these levels within the milk production curve over the entire lactation period.

FREIGHT RATE INCREASE proposed by eastern railroads is stirring up a big fight. State secretaries and commissioners of agriculture in the Northeast have been joined by the USDA (as well as many agri-business and farm organizations) in filing protests against proposed 6% boost in rates on grain and feed ingredients.

Big rub is competition by livestock industries farther south, where rail rates have been considerably lower for many years ... and would remain lower if Northeast rates rose. If you're not worked up about this you should be ... for the sake of your pocketbook!

MASTITIS developments include attempt by Food & Drug Administration to prohibit injection into the udder of some widely-used mastitis treatment materials. On July 1, 1968, Phase II of program by National Conference on Interstate Milk Shipments goes into effect. Milk leucocyte count over 1.5 million puts producer in trouble, and continued readings that high means mandatory check of herd by vet, and milking machine by serviceman.

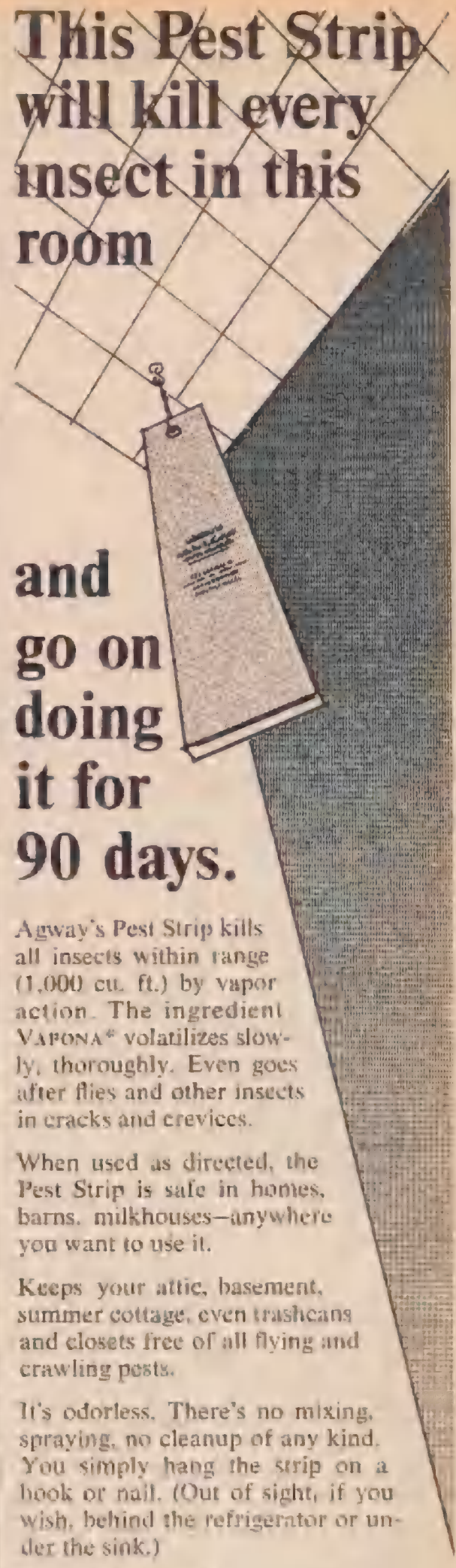
On July 1, 1970, a penalty begins for those producers with three of last five leucocyte tests over 1.5 million ... exclusion from shipping milk or court action.

FEDERAL FARM LEGISLATION faces an uncertain future. Money problems incline some legislators to reduce present government payments to farmers. Committee for Economic Development points to USDA budget of $4½ billion for agriculture, and recommends "sizable cuts."

Present farm program passed in 1965 is due to expire unless extended. For years Farm Bureau has advised gradual phasing out of government support prices for farm products. It was not done, and a sudden, complete dropping of government programs would certainly result in temporary low returns for some agricultural products. Farm Bureau recommends controlling production by government plan to take some farmland out of production on a long-time basis.

There is a move by some congressmen to extend the 1965 farm act at least for one year.

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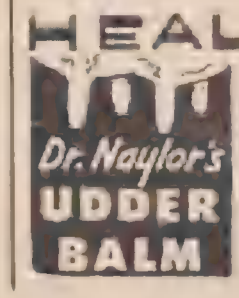
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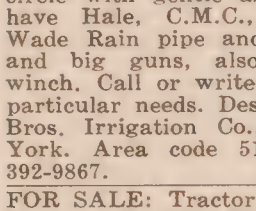
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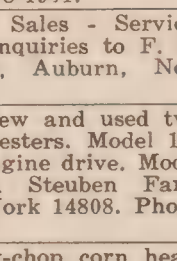
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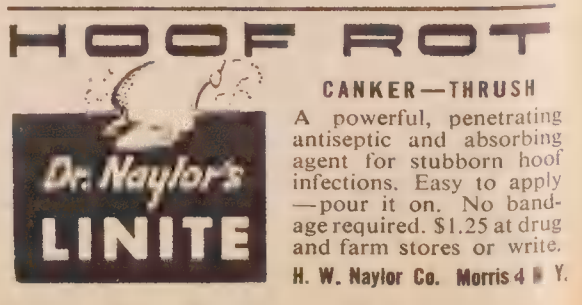
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BIG PUMPKIN CONTEST

Young gardeners across the nation will soon be competing for cash prizes and honors in the fifth annual Big Pumpkin Contest sponsored by the Men's Garden Clubs of America.



The contest is open to youngsters over 6 and under 17 years of age, and is for growing the heaviest pumpkin or any cucurbit. Seeds of Big Max pumpkin, a variety that averages more than 100 lbs. when given plenty of moisture and fertilizer, have been donated by W. Atlee Burpee Co. to MGCA to give contestants for spring planting.

Details of the contest and how to obtain the free seeds may be obtained from local chapters of Men's Garden Clubs of America, or by writing their Executive Secretary, Guy D. Chichester, Box 160, Johnston, Iowa 50313.

POULTRY EXPANSION

In spite of depressed egg prices over many past months, capacity to house one million more laying hens has been . . . or will be . . . constructed in Sullivan County, New York, during 1967 and 1968. Some poultry producers have ceased operations, so the net gain should be around 750,000 birds . . . reports county agent Earle Wilde.

Fewer than ten outfits are involved in the million-bird expansion, and two operators account for 500,000 between them.

At least two building complexes involve deep dropping pits (8 feet or more) that shouldn't have to be cleaned for years.



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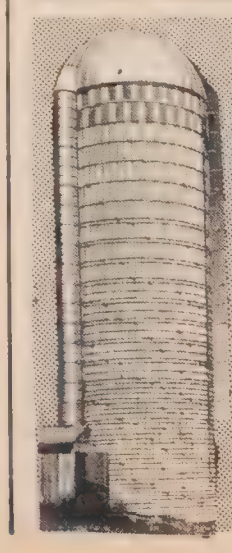
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MILK, A FAMILY FOOD

by Alberta Shackelton

Being "Dairy Month," June is an especially good time to check your family's milk consumption and see if everyone is getting enough of this very important basic food. The following **minimum** daily amounts are recommended for good nutrition: 2 cups for children under 9, 3 cups for children 9 to 12, 4 cups for teenagers, 2 cups for adults, 3 cups for pregnant women, and 4 cups for nursing mothers.

Milk is high in calcium, which is so important in the diet **at all ages.** It also supplies substantial amounts of protein, as well as important vitamins and minerals. Serving it as a beverage and in products such as ice cream and cheese are easy ways to put milk on the menu. Milk is also used in preparing so many foods — soups, casserole and other main course dishes, vegetables, and desserts.

Following are some good recipes which use milk.

FRUIT TRIFLE
(adapted from National Dairy Council recipe)

⅓ cup sugar
1½ tablespoons cornstarch
⅛ teaspoon salt
2½ cups milk
3 egg yolks, slightly beaten
1 teaspoon vanilla extract
¼ teaspoon almond extract
16 to 20 double ladyfingers
½ cup fruit jelly or preserves
1½ cups drained fruit (canned, frozen, or fresh) — berries, peaches, pineapple, orange sections, etc.
1 cup heavy cream, whipped

Combine sugar, cornstarch, and salt and add milk gradually. Cook over medium heat, stirring constantly. Blend a small amount of sauce into yolks and return this egg mixture to sauce. Heat 1 or 2 minutes with stirring. Cool and add extracts. Chill.

Open ladyfingers, spread centers with jelly or preserves, and put together sandwich-style. Arrange ladyfingers over bottom and sides of large glass compote or serving dish. Spread half of fruit over bottom, cover with half of chilled sauce. Top with remaining ladyfingers, fruit, and sauce. Chill. At serving time top with dollops of whipped cream. Serves 8 to 10.

Milk Bar

Let your young teenagers entertain their friends with a "Milk Bar" set up soda-fountain-fashion in the kitchen. They can mix their own refreshments from a supply of milk, flavorings, sirups, and ice cream with the help of an egg beater, electric mixer or blender. They will love being "soda jerkers."

The following Fruit Punch will prove popular for summer gatherings of older teenagers. An assortment of butter cookies and petit fours are tasty go-alongs. For easy petit fours, cut a sheet cake in squares and decorate simply with a butter cream frosting.

FRUIT PUNCH
(N.D.C.)

1 6-ounce can frozen pineapple juice concentrate, defrosted
1 10-ounce package frozen strawberries, defrosted
2 pints strawberry ice cream
4 7-ounce bottles chilled lemon-lime carbonated beverage

Combine pineapple juice, strawberries, and 1 pint of ice cream and blend smooth. At serving time, pour into chilled punch bowl and add chilled carbonated beverage. Spoon remaining ice cream on top. Serve in punch cups. Makes about 9 cups punch.

Cooking With Cream Sauces

Almost any course in a meal can boast a dish made with a cream sauce. Of course, good meal planning should feature only one "creamed" dish for a meal.

Try this easy method of making cream sauce. Blend equal parts of soft butter and flour to a smooth paste; put in covered jar in refrigerator and label "Butter Paste." When ready to make the sauce, heat desired amount of milk, add the paste in the following proportions, and boil for 1 minute, stirring constantly. Season to taste.

Thin cream sauce: about 1½ tablespoons paste for each cup milk.

Medium cream sauce: 3 tablespoons paste for each cup milk.

Thick cream sauce: 4½ tablespoons paste for each cup milk.

More paste may be added if sauce is too thin, or a little more milk added if sauce is thicker than you wish.

SWISS CHEESE SOUFFLE
(N.D.C.)

⅓ cup butter
⅓ cup flour
½ teaspoon paprika
1½ teaspoons salt
⅛ teaspoon pepper
1½ cups milk
1 or 2 teaspoons Worcestershire sauce
2 cups finely shredded Swiss cheese (½ pound)
6 egg yolks, beaten well
6 egg whites, beaten to soft, moist peaks

Melt butter, stir in flour, salt, paprika, and pepper. Add milk gradually. Cook until smooth and thickened, stirring constantly. Remove from heat, add Worcestershire sauce and cheese, and stir until just blended. Cool slightly and stir in egg yolks.

Fold beaten egg whites carefully into mixture. Pour into greased 2-quart casserole or souffle dish, set in a shallow pan of water. With back of a spoon, make a groove around souffle, 1 inch from edge of dish. Bake in moderate oven (350°) about 1 hour or until a silver knife inserted near center comes out clean. Serves about 6.



This elegant looking dessert is easy to make . . . tastes good . . . and is good for you.



Fruit punch made with strawberry ice cream will make a hit with teenagers.

Photos: National Dairy Council

SCALLOPED VEGETABLES

1½ cups cooked sliced carrots
1½ cups cooked celery slices
1 10-ounce package cooked frozen peas
1 cup sauteed sliced mushrooms, fresh or canned
2 cups medium cream sauce, approximate
Buttered crumbs
Grated cheese, if desired

Combine vegetables and cream sauce. Place in a greased 1½-quart casserole or baking dish. Top with buttered crumbs and sprinkle with grated cheese. Heat in a moderate oven (350°) about 30 minutes, or until hot throughout. Serves about 6. This makes a tasty accompaniment for baked ham and is a nice way to use up small amounts of left-over vegetables.

HOMEMADE VANILLA ICE CREAM
(U.S.D.A.)

2 cups sugar
¼ cup cornstarch
¼ teaspoon salt
4 cups milk
4 eggs, beaten
2 tablespoons vanilla
4 cups table cream

Mix sugar, cornstarch, and salt in top of double boiler and blend in milk gradually. Cook over hot water, stirring occasionally until thickened — 12 to 15 minutes. Stir a small amount of the hot cornstarch mixture into the beaten eggs; then stir the eggs into the remaining cornstarch mixture.

Cook over hot water, stirring constantly, 4 or 5 minutes longer or until mixture is about the consistency of pudding. Chill **thoroughly** (essential for a smooth ice cream). Stir in vanilla and cream.

Pour into a 1-gallon ice cream freezer can; fill not more than two-thirds full. Freeze in hand-cranked or electric ice cream freezer, packed with a mixture of 1 part ice cream salt and 3 parts crushed ice. Remove dasher; repack ice cream freezer with the mixture of 1 part salt and 6 parts crushed ice. Allow to ripen 2 hours before serving.

For fruit ice cream, stir 2 cups crushed or pureed sweetened fruit into ice cream after dasher is removed. Repack and allow to ripen.

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What was the toughest job on the farm in the old days?

Journey To Day Before Yesterday

by Ed Eastman

will enlighten you . . . if you haven't already made up your mind. But there was lots of fun, too . . . and warm memories of the old country store, the "ole swimmin' hole" and other summer joys.



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Photo: Robert Mower

Wisteria's graceful and fragrant flower clusters make it one of our most popular vines.

Vines

by Nenetzin R. White

Make your home unique and outstanding by growing some vines!

All of us seem to have memories of at least one romantic vine; perhaps it was Grandmother's climbing roses . . . or a novel we read with lovers strolling under wisteria or jasmine . . . or graduates and their ivy-covered walls.

Vines can be truly lovely and provide dramatic results. They will cover an eyesore such as a stump or wire fence, enhance and point up architectural features, and be a background for perennials, bulbs, or annuals. Vines will soften harsh walls or corners and are especially valuable in small areas where space is limited. Many of the evergreen vines will "make" a chimney or wall.

Following are a few of the outstanding perennial vines:

English Ivy – an evergreen useful as a ground cover or on a wall. It will cling by itself even to semi-glazed concrete or marble surfaces. In our Ithaca, New York, area a southern exposure is to be avoided, for frequently the vine will winter burn.

Boston Ivy – a deciduous plant with large, glossy leaves; climbs without support and has magnificent scarlet color in the fall.

Wisteria is beautiful on a trellis or arch. It has fragrant, pendant-like flowers, with colors from white through the blues and purples. It is a rapid grower, long lived, and tolerant of most soils.

Dutchmans Pipe grows very rapidly and has rich, glossy, heart-shaped leaves; it makes a thick shade screen. Children love the flower – a yellowish-green tubular bloom which resembles a meerschaum pipe.

Silver Lace Vine – a rapid grower with airy white blossoms from June through September.

Clematis can be difficult to grow but does very well when happy. In central New York, a heavy winter mulch for the roots will usually guarantee viability. The color range covers the rainbow, and several have flowers which are large and saucer-shaped.

Climbing Hydrangea is one of my favorites. It will cling to stone walls and has beautiful, showy, creamy-white flowers in midsummer. These are slow growing when young, but grow rapidly later; they will tolerate a northern exposure and like semi-shaded areas.

Honeysuckle in its yellow forms is usually deliciously fragrant. This may also be used as a ground cover and is an evergreen from Virginia southward. The Trumpet Honeysuckle is a spectacular scarlet-red type and easily grown.

Climbing Roses seem to strike a romantic note in everyone's heart. Be sure to give them a sunny location to avoid mildew, black spot, etc. You can have spring blossomers, spring and fall blossomers, or the so-called "perpetuals."

Wintercreeper or Panorama Vine is a handsome evergreen vine that will enhance any chimney or wall. Many varieties have bittersweet-like fruit. There are dozens of varieties, ranging from tiny, rock garden types to fast growing ones, suitable for fences.

Bittersweet. Both the native and Oriental varieties thrive almost anywhere. A fast-growing deciduous vine with bright yellow foliage and unique orange-scarlet fruit in the fall, it is excellent on a split rail or cyclone fence. Its twining and twisting habits make it a natural for poles, posts, wires, or tree stumps.

For lack of space, I have not mentioned annual vines. There is a great wealth of these, and children seem to enjoy them tremendously. Any good seedsman will offer you many delightful and unusual varieties.

For the vines that need support (without using wire or trellises), there are adhesive or nail-type supports. It is wise to consult a reliable book or get a nurseryman to help you place your vines in the proper locations.

Your local library should have several books on vines and their uses. See if you can locate a copy of "A Little Book of Climbing Vines" by Alfred Carl Hottes. It has been out of print for quite some time, but is the best I have seen on these interesting plants. Please write me at any time if you have questions.

AROUND the HOUSE

Booklets You Might Like

"Plain & Fancy" Cookbook featuring butterscotch and chocolate specialties. Send 25 cents to: **Consumer Service Dept. P/F, The Nestle Company, Inc., 100 Bloomingdale Rd., White Plains, New York 10605.**

"The Magic of Spices," a 48-page booklet. Includes spice charts and dozens of short and easy recipes for giving aroma and flavor to dishes for every meal of the day.

Send 10 cents to: **The American Spice Trade Assn., 76 Beaver St., New York, N.Y. 10005.**

"Fruits in Family Meals" (HB-125). Gives tips on buying, storing, and using fruits, with recipes ranging from appetizers to desserts. Available for 15 cents from the **Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.** Be sure to include your zip code.

"New Careers for Women, 1970-1980." If you are a teenager, college student, or a woman who plans to return to the business world within ten years or so, this should be of interest to you. Brief descriptions of 16 careers are followed by references in case you wish more detailed information.

This booklet is available from the **American Assn. of University Women Educational Foundation, Inc., 2401 Virginia Avenue, N.W., Washington, D.C. 20037,** for 35 cents per copy.



As rugged in looks as natural wood, **Lite-Beams** made of urethane foam are used in this family room. A 16-foot beam weighs only 8 pounds and cannot be distinguished from the real thing. Stained finishes are available in dark walnut, medium mahogany and light oak. Manufactured by Am-Finn Sauna, Inc., of Camden, N. J.



Steam irons now have soleplates that don't scratch even when they hit a zipper and that clean easily with steel wool without harming the **stainless steel soleplate.** Four appliance manufacturers are now marketing these irons.



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"Mister Aluminum" cleans awnings, screens, siding, boats, house trailers, and all other aluminum items. Apply with a brush and rinse off without rubbing or scouring. Marketed by National Solvent Corp. and available at most food, hardware, discount, and department stores.



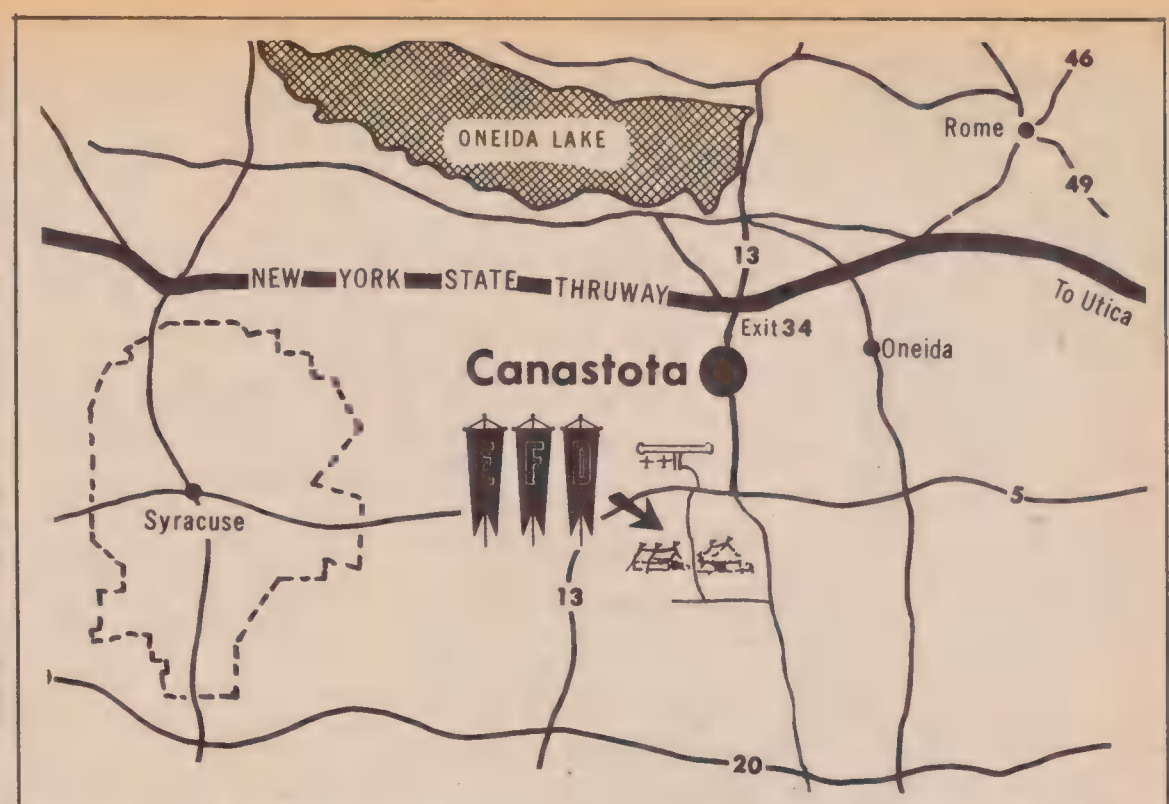
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FENCE

By Mary C. Ferris

When we moved here we built a fence
To separate our plots.
Our little boys became acquainted
Through its narrow slots.

We talked across it through the years.
Now covered in this weather
With roses, it's a scarlet seam
That sews our plots together.



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Ed Eastman's Page



LEAVE THE FUTURE TO THEM

Many years ago when American Agriculturist still had its editorial offices in New York City, a tall thin midwesterner came in to see me, telling me that his name was O. H. Benson. Then I remembered that Mr. Benson had been a country school teacher in the Midwest and had come up with the idea that all of the outdoors around his little school was really a great laboratory where children could learn as much as they could from books.

On that idea, with the help of others, Benson started the great 4-H organization, which has meant so much to thousands of boys and girls ever since. As you know, the founding principle of the 4-H clubs was to teach young country people a detailed knowledge and love of life on the farm and in the country.

But great as the 4-H is with all of the fine work it has done, Benson thought that rural boys should have the benefit of the wonderful services to be had from the Boy Scout organization. Village and city boys had the opportunity to participate in scouting, but, because of their isolation, it was physically difficult, especially in the West where distances are great, for country boys to have the same wonderful privileges that scouting has to offer.

So Benson set about to organize a branch of the Boy Scouts which would make it possible to extend the principles and services of scouting to rural boys, to be known as the Rural Relationship Service, and he became the first director of this branch of scouting. I became a member of the rural committee and attended its first meeting on May 10, 1927. Since that time this branch of scouting has grown and flourished, until in 1967 there were approximately a quarter million rural boys with their adult leaders in scouting.

What a testimonial to what one man can do (if he has faith, determination, and enthusiasm enough) is this splendid record of the leadership of O. H. Benson.

Sometimes when I get discouraged . . . as all of us do . . . about the future of this America of ours, I think of O. H. Benson and all of the millions of boys and girls in Scouting, 4-H clubs, Future Farmers, and other youth organizations, and my faith in the future is renewed. I am willing to leave our future in the hands of those boys and girls who have been trained by the youth organizations in habits of responsibility and in high ideals.

A FULL PAIL OF MILK

In all the years while growing up on a dairy farm, working for dairymen, and finally dairying for myself, I can't remember one time when I got a fourteen-quart pail full of milk from one cow, even when the cows were on good June pasture. Writing in the Eastern Artificial Breeders Co-operator, David Johnson, field representative of Eastern, tells of two brothers, John and Tony Kersmanc, with a herd of forty-eight cows that in 1967 averaged 18,793 pounds of milk.

That means that any one of those cows produced more than a 14-quart milk pail full twice a day over a good part of her lactation period.

This illustrates the tremendous progress that has been made in dairying in fifty years, for there are thousands of cows that can equal that record. What fun it would be to milk a cow like that. Some of the fun and also some of the hard work are lost by the modern milking machine and piping system that takes the milk directly from the cow to the big cooling tank.

While annual production of more than eighteen thousand pounds of milk per cow is not too common, there are many herds that produce fifteen or sixteen thousand pounds. The whole point of this piece is to emphasize the fact that a dairyman does not have much chance unless his herd averages at least from twelve to fourteen thousand pounds per cow.

A PLACE FOR FAMILY FUN

As I ride across the Northeast, I notice more and more farm ponds every year. Most of them are well built and good, but too many are just mud holes and a nuisance or dangerous. Go ahead and build one if you possibly can, but if you do build it right and take care of it.

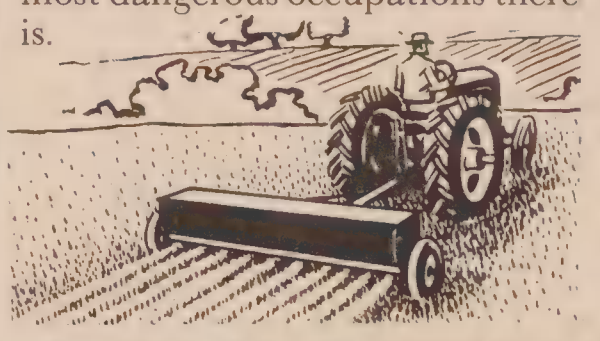
A good farm pond can be a source of water supply, a protection against fire, and a place for family fun.

To build a farm pond right, ask your county agent for full information, or write to the farm engineering department of your state college of agriculture.

TAKE CARE

A few days before this was written David Eastman, my grandson, telephoned to tell me that Robert Greenwood, David's father-in-law, had been injured when his tractor tipped over. Mr. Greenwood was fortunate in that he will recover, but I immediately began thinking not only of his terrible suffering and that of his family, but how he was going to get his farm work done?

Almost every time I pick up a newspaper I read about some farmer, often a personal friend, who has been killed or injured. Modern farming is one of the most dangerous occupations there is.



Suppose you are operating a farm without any help, as many of you now have to do, and suppose that suddenly you are badly injured, as Mr. Greenwood was . . . what would happen to your business and to your family? I mention these unpleasant thoughts to emphasize the need of taking great care in your farming operations, especially now when work is pressing.

Some years ago I remonstrated with a farm friend about being careless with his bull. "Nonsense," he answered, "he's just as gentle as a kitten." A few weeks later that friend was badly injured by his "gentle" bull. A bull is not that kind of a kitten, and can never be trusted!

One of the biggest cripplers and killers is the tractor. Working with one every day we forget how dangerous it is and grow careless. Think about tractor and other farm accidents a moment with me, and maybe save yourself from terrible trouble.

SLEEPING WITH BED WARMERS

This is about my book, "Journey to Day Before Yesterday," so don't read further if you don't wish to.

In my work as a writer and editor I have received many thousands of interesting human interest letters, but never so many or so interesting as I have had from enthusiastic readers of "Journey to Day Before Yesterday." Here are excerpts from a couple of letters just received to illustrate what I mean:

"Your book has just been thoroughly enjoyed and this is my first fan letter. I have enjoyed many a book, but no pages ever could be more in tune with my growing up years. Did you ever put a stick of wood, the flatiron, or a Sear's or Ward's catalogue in the oven to soak up heat, then take it to bed with you?" — Mrs. G. K.

Answering the lady's question, I have, including a soapstone and a jug of hot water. Also I have grabbed my clothes in the icy cold bedroom where I slept, and where snow sometimes sifted through the window, and ran to dress close to the hot old round oak stove.

Mrs. S. M. writes:

"I sent for a copy of your book "Journey to Day Before Yesterday" for my husband's birthday. When it came I just had to read it. I can't begin to tell you what a truly great book it is. Although I am only thirty I remember so many of the things you tell about."

To get a copy write to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York 14850. The price is $5.95, plus 12 cents tax in New York State.

EASTMAN'S CHESTNUT

Although I have never met him, one of the best friends I have is the Reverend Ernest A. Droppa, pastor of the First Methodist Church at Little Falls, New York. For some years, Ernest and I have been trading bits of philosophy and chestnuts.

I have printed one or two before on this page but the best one of all I received just the other day. Ernest said he got it from his mother-in-law.

According to Ernest . . . or his mother-in-law . . . an elderly man, who was quite religious, had trained his mule to stop whenever he said, "Amen." To get him going again, all he had to say was, "Praise the Lord!"

One day when this man was jogging comfortably along in the old buggy, they suddenly came to a precipice and the old man shouted, "Amen, Amen!"

The mule stopped just in the nick of time, and the old man was so grateful that he couldn't resist shouting, "Praise the Lord," . . . and over the cliff they went!

SERVICE BUREAU

For The Northeast Farmer

by M. A. Parsons

PROTECTIVE SERVICE

"Please explain about Protective Service membership. I do not understand it. Is there any charge? Does this insure us against damage to personal property, including farm animals?"

The American Agriculturist Service Bureau was set up to give free help and advice to our subscribers. There is no charge for the service, and it is **not** an insurance of any kind.

We try to iron out difficulties and misunderstandings between our subscribers and commercial concerns and, when we feel a complaint is justified, we try to arrange a satisfactory adjustment or settlement.

Whenever possible we supply information on commercial concerns. We will tell you if we have had complaints against them.

We find answers to many questions. If we do not know the answer, we try to refer you to someone who does. We can tell you, in general, what the laws are regarding fencing and posting.

Reward

We offer a $25.00 reward to the person who gives information leading to the arrest, conviction and imprisonment for at least 30 days of anyone who defrauds, steals from, or commits arson against a subscriber. The reward does not necessarily go to the person against whom the crime is committed nor to a subscriber.

Payment of the reward is subject to the following rules:

1. The act of fraud, arson, or theft must be committed against a subscriber who has a Protective Service sign prominently displayed.
2. Claim for a reward must be made promptly within 30 days after conviction.
3. Conviction must result in a jail sentence of at least 30 days. No reward will be paid if sentence is suspended or the culprit is paroled.
4. The reward will not be paid to law enforcement officers.
5. The reward will not be paid in the case of theft from commercial concerns, only from farms.

Sorry

We **cannot** answer legal questions or give any help in legal matters, nor can we handle a complaint that is already in a lawyer's hands.

We **cannot** handle any complaint that is over 6 months old.

We **cannot** collect accounts for commercial concerns or settle disputes or claims between individuals.

If you write to us about a problem, please attach the address label from your latest issue of American Agriculturist. This shows that you are a subscriber and entitles you to our free services.

Explain your complaint clearly and fully. Enclose any necessary receipts, papers, etc. in your first letter and give all of the details, including dates, amounts, sizes, order number, account number, or receipt number.

If you write us the second time about the same complaint, mention the name of the concern. If you are requesting information about a company, tell us what their business is.

Be sure you date your letter and include your full name and address.

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Burdette C. Hotaling, Jr., Sharon Springs (payment for equipment)	$772.00
Mrs. Arnold Widrick, Croghan (credit allowance)	25.96
Mr. Albert Finewood, Phelps (payment for hay)	320.00
Mr. E. S. Westfall, Howes Cave (payment for honey)	72.00
Mr. John D. Crossen, Newark Valley (refund of premium)	88.25
Mrs. Robert Fredenburg, Canajoharie (refund on credit memo)	7.50
Mr. Wm. M. Johnson, Hammond (refund on credit memo)	11.85

PENNSYLVANIA

Mr. John F. Koontz, Saltsburg (refund on crystals)	22.25
Mr. August Schnakenberg, Lockout (refund on returned order)	2.64

VERMONT

Mrs. Gordon W. Churchill, Proctorsville (refund on books)	5.67

CONNECTICUT

Mr. George Prue, Storrs (refund on cancellation)	1.95

ADDRESSES WANTED

Albert L. Snyder, formerly of Camden, N.Y.

* * *

Evelyn Rose Martin, who lived in Hopkinton, N.Y. in 1948.

* * *

Lloyd Simmons, who attended a little country school in Hickox, Pa., Potter County. He had a brother in Whitesville, N.Y.

* * *

Descendants of Thomas Lamson of Cambridge, Mass. and of Barnabas Lamson of New Haven, Conn.

* * *

Mr. and Mrs. Wm. Navin or daughter, Leona, who lived in Irondequoit, N.Y. in 1920.

* * *

Descendants of George Eickler of California, formerly from Otsego County. N.Y.

* * *

Descendants or relatives of John A. Ward, who was born at Sandy Creek, N.Y.

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

SOL RUBIN, well-known cattle dealer, machinery dealer and dairy farmer from Cobleskill, N. Y. and his wife, Bernice received checks from agent Frank Pine of Fonda, N. Y.



The Rubins survived an auto accident in which the other car, skidding out of control on freezing rain, smashed into them. Mrs. Rubin was hospitalized 17 days, Mr. Rubin 9 days. Each carried a combination of policies which paid a total of $4138.69 in weekly income and medical expense benefits.

Their letter of thanks:

"We have carried our North American policies for many years. Over this period our agent, Mr. Frank Pine called on us regularly and through his instruction we increased our coverage. Our relationship with the company has always been amiable. They have in the past paid several small claims. Now at this time, following our serious accident, they have come through for us. They have paid our claim without any questions. We merely submitted the information. I want to thank Mr. Pine for his personal attention and recommend buying of North American Accident Insurance Policies."

Bernice W. Rubin

OTHER BENEFITS PAID

Woodrow W. Mabie, Belmont, N.Y. Caught in belt—broke hand	$ 148.57	**Marvin Bisbo, West Monroe, N.Y.** Knocked down by cow—inj. leg	$ 112.84
Martha Miller, Cuba, N.Y. Slipped and fell—inj. hip	1130.00	**Cornelius Mulder, Cherry Valley, N.Y.** Fell off roof—broke heel	966.55
Gordon Hoag, Whitney Point, N.Y. Stepped on by cow—inj. back	827.14	**Steven C. Parker, Potsdam, N.Y.** Kicked by cow—broke hand	323.56
Robert Warner, Yorkshire, N.Y. Tractor rolled back—inj. foot	156.09	**James Morrison, DeKalb Jct., N.Y.** Slipped fell—inj. knee	576.70
Nelson L. Irish, Freedom, N.Y. Attacked by bull—broke ribs	265.72	**Susan Gridley, Delanson, N.Y.** Thrown from horse—inj. knee	138.78
Russell Smith, East Randolph, N.Y. Kicked by cow—broke arm	585.42	**Robert Seacord, Warnerville, N.Y.** Fell down stairs—broke ribs	251.42
Francis Muhlnickel, Cato, N.Y. Thrown from bulldozer—broke leg	400.80	**Richard Zeller, Sharon Springs, N.Y.** Kicked by cow—broke rib	197.12
James Ostrander, Locke, N.Y. Fell off horse—inj. back	376.36	**Frederick Robson, Waterloo, N.Y.** Caught in elevator—broke foot	314.28
Timothy Johnson, Jamestown, N.Y. Slipped on grease—inj. back	690.55	**Matthew Pettit, Romulus, N.Y.** Auto accident—mult. injuries	1273.56
Norman Butts, Ashville, N.Y. Fell from ladder—broke wrist	140.93	**LaVerne VanSkiver, Jasper, N.Y.** Fell off tractor—inj. knee	652.28
Leda Kirk, Chemung, N.Y. Caught in washing machine—broke arm	644.54	**Edward Dumack, Savona, N.Y.** Caught in planner—inj. hand	242.84
Jack Eaves, Sherburne, N.Y. Fell from mow—broke cheekbone	934.15	**Frederick Petzoldt, Newark Valley, N.Y.** Fell from tractor—broke leg	550.00
Roma Castine, Sr., Plattsburgh, N.Y. Kicked by cow—inj. knee	920.00	**Catherine Hunt, Owego, N.Y.** Hit by cow—broke elbow	235.70
Charles O. Murray, Jr., Truxton, N.Y. Tying up bull—inj. hand	302.25	**Amy Youmans, McLean, N.Y.** Hit by car—inj. hip	1260.57
Charles Westcott, Franklin, N.Y. Hit by tree limb—cut scalp	407.75	**Duane Seager, North Rose, N.Y.** Fell off ladder—broke wrist	193.14
William Schultz, Jr., Elba, N.Y. Caught in P.T.O.—inj. leg	387.60	**Sarah DeCracker, Newark, N.Y.** Slipped and fell—broke hip	1281.42
Earl Bogue, Oakfield, N.Y. Slipped and fell—broke hip	1325.00	**George Moden, Bliss, N.Y.** Caught in pulley—inj. hand	346.43
Jacqueline Pinkezicz, Little Falls, N.Y. Hit with silo door—inj. ribs	299.70	**Walter Matwiejaw, Dundee, N.Y.** Caught in silo unloader—inj. hand	509.85
Ronald Gatto, Frankfort, N.Y. Pinned under car—broke leg	432.53	**Thomas Groover Canton, Pa.** Slipped on power saw—cut leg	117.97
Willard Wright, Watertown, N.Y. Caught in P.T.O.—inj. hand	1251.20	**LaOlin Chamberlain, Covington, Pa.** Gas explosion—burned hands	159.24
Dorothy Hoppel, Castorland, N.Y. Kicked by cow—inj. leg	402.86	**Vladimir Demianovich, Forest City, Pa.** Fell from scaffold—inj. back	681.00
Ralph Bush, Lowville, N.Y. Auto accident—inj. knee	263.99	**Benjamin Carrey, Andover, N.J.** Kicked by cow—inj. knee	211.37
Elmer Brown, Dansville, N.Y. Auto acc.—multiple cuts, bruises	352.60	**James Grovatt, Vincetown, N.J.** Auto acc.—multiple injuries	1154.88
Ruth Roe, Madison, N.Y. Caught in truck door—inj. hand	469.65	**Fred Brink, Sussex, N.J.** Kicked by cow—inj. ankle	214.28
George Zuber, Honeoye Falls, N.Y. Fell from loft—broke collarbone	137.14	**Marion G. Libby, Auburn, Maine** Knocked down by calf—inj. head	768.04
Grant Vanloan, Fort Plain, N.Y. Caught in P.T.O.—inj. leg	589.37	**George Merrill, Salem, N.H.** Horse fell on leg—broke leg	348.00
Martin Stas, Fabius, N.Y. Hit by car—broke elbow	530.00	**Otto Livingston, Brownsville, Vt.** Struck by cow—inj. leg	821.08
Richard Miller, Albion, N.Y. Knocked down by cow—inj. knee	503.84		

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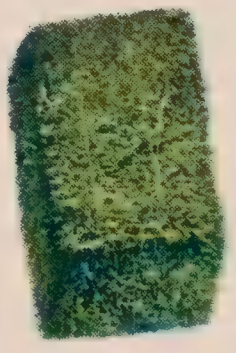
Ideal for short hay. Tests show *Super-Sweep* is of greatest benefit in second- and third-cutting alfalfa, prairie hay and Coastal Bermuda.

But suppose hay loss is no problem for you? Is the Hayliner 268 still your kind of baler? Absolutely!

From hitch to chute, this PTO baler is built for top performance over many seasons.

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You might also be interested in two other New Holland 14" x 18" balers: the long-tongue Hayliner 269 for wide-track tractors and engine-drive Hayliner 272. For both, *Super-Sweep* is standard on wire-tie models, optional on twine-tie models. And there's a bale thrower for each twine-tie baler.

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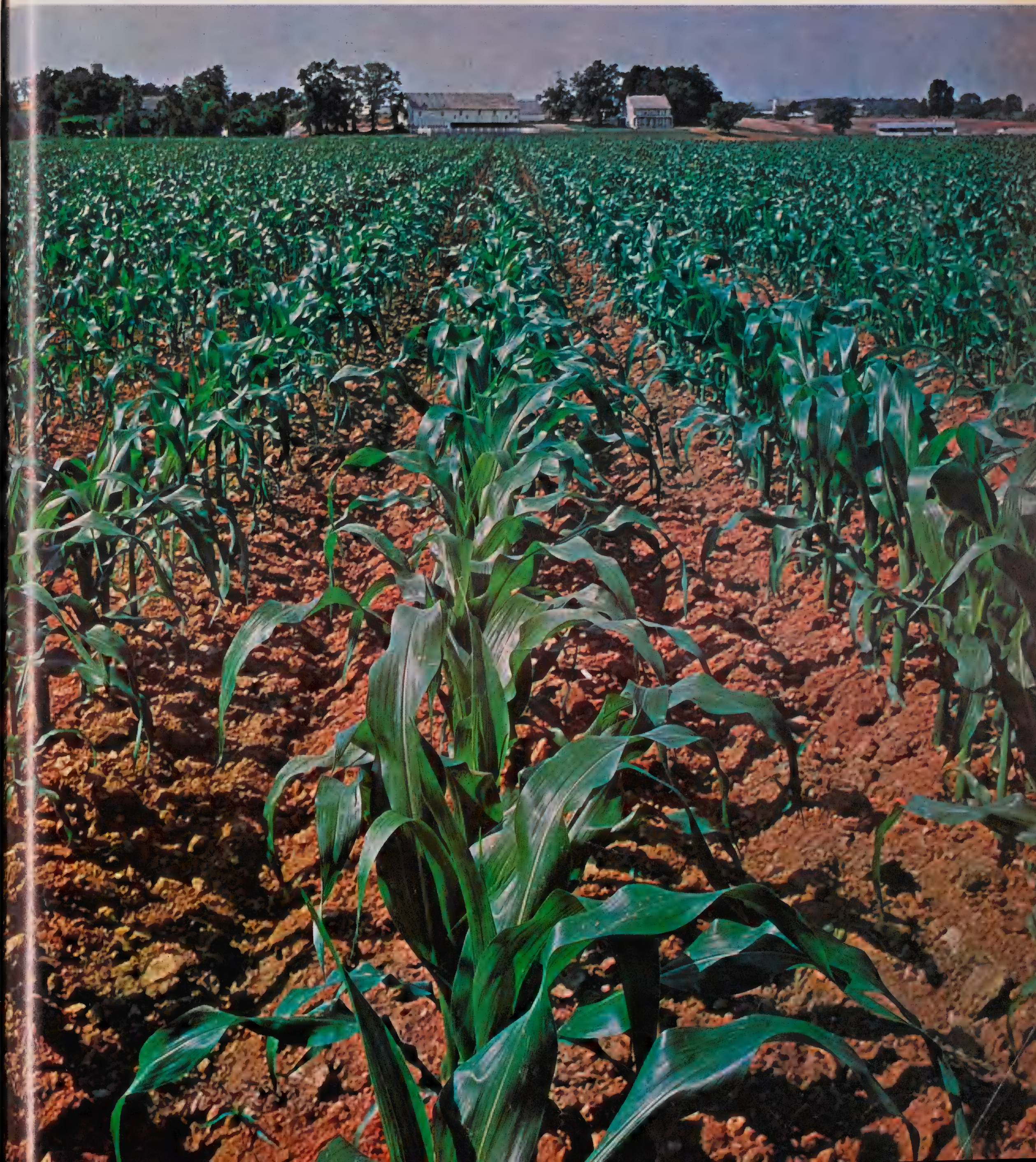
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For The
Northeast
Farmer

JULY 1968

American Agriculturist
and the
RURAL NEW YORKER



MOHAWK AIRLINES INTRODUCES

A NEW IDEA IN AIR FARES

Airlines have been selling destinations and distance for years now, but it took Mohawk to conceive the idea of selling **time** in the air. For instance, we're selling 5 whole business days in the air for just $65, as you see below. The concept started with Mohawk's popular "Weekends Unlimited", the $25 "time" fare. "Weekends Unlimited" is already a household word, except nobody's staying in the house anymore—they're out exploring the East on Mohawk.

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For The Northeast Farmer

American Agriculturist and the RURAL NEW YORKER

Vol. 165, No. 7

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OUR COVER

"Knee high by the Fourth of July" . . . the time-honored standard of corn growers. Grant Heilman snapped this one on the Glenn Esbenshade farm near Manheim, Pennsylvania.

Dollar Guide

For The Northeast Farmer

THE USDA has amended the New York-New Jersey Federal milk marketing order to change milk classification, pricing and accounting procedures to fit the New York State milk standardization law as of July 1.

USDA's Consumer and Marketing Service officials said as of July 1 the order will contain a skim milk and butterfat accounting system essentially the same as now employed in all other Federal milk orders.

Changes were made to provide for two milk use classes instead of the present three classes. Class I will include fluid milk products already in that category, all milk drinks, and fluid cream, except storage, plastic and sour cream. Class II will be other milk used in manufactured dairy products.

SUPPORT PRICES for the 1968 crop of edible dry beans generally will be the same as those for 1967. The prices to producers announced recently average $6.38 per hundredweight compared to $6.37 in 1967.

Price support on 11 classes of beans will be available for U.S. No. 2 or higher-grade beans. The deductions from loan rates for farm-stored thresher-run beans will continue at $2.00 per cwt. in New York.

NEW YORK'S wheat growers will have a new variety called Yorkstar this fall, when enough certified seed to plant 50,000 acres is expected to be made available. This is about 20 percent of the State's wheat acreage, a dramatic development for a new variety awaiting commercial production.

PREVENTING KETOSIS in a herd can be done by judicious feeding and good management practices. Keep the cows full of good quality roughage, without getting them fat at calving; after calving, bring cows to full feed on concentrates as rapidly as possible.

Avoid making abrupt changes in ration; maintain a proper balance between grain and roughage, including enough protein and minerals in cow's diet; Ketosis-prone herds should be fed propylane glycol or sodium proprionate at the rate of 4 to 8 ounces per cow.

Ketosis-stricken cows should be immediately treated by a veterinarian.

PROFESSOR W.C. Skoglund, chairman of the University of New Hampshire Sciences Department, says that decreasing the length of day as pullets are growing and giving them a constant day of 14 to 15 hours of light after they start producing gives the best egg production results.

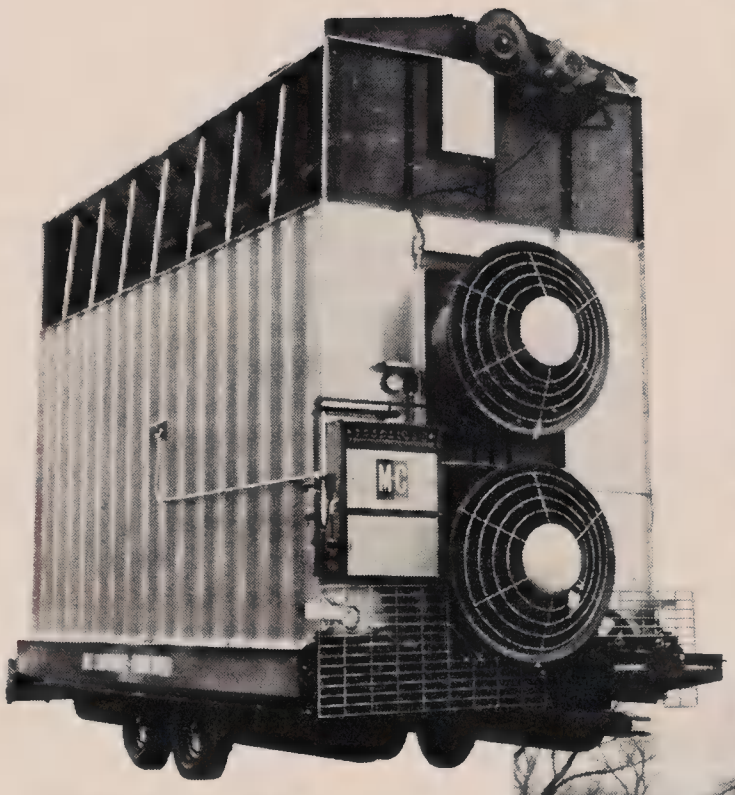
MITES remain most difficult orchard insect to control. Kelthane is rated by college researchers as "very good" for both red and two-spotted mites, as are Trithion and Ethion. Genite and Tedion are similarly rated for red mites only.

LICE AND MITES on poultry can be controlled by Malathion, Sevin, or Co-Ral. Electric mist machines that "fog" birds with concentrates mixtures are highly recommended. Insects can develop resistance to any one material; Sevin appears to retain the highest degree of effectiveness. Remember that Lindane, B.H.C., DDT, Aldrin, Dieldrin, Endrin, Chlordane, Heptachlor, Toxaphone, Cygon, or Korlan are not approved for external parasite control in poultry houses.

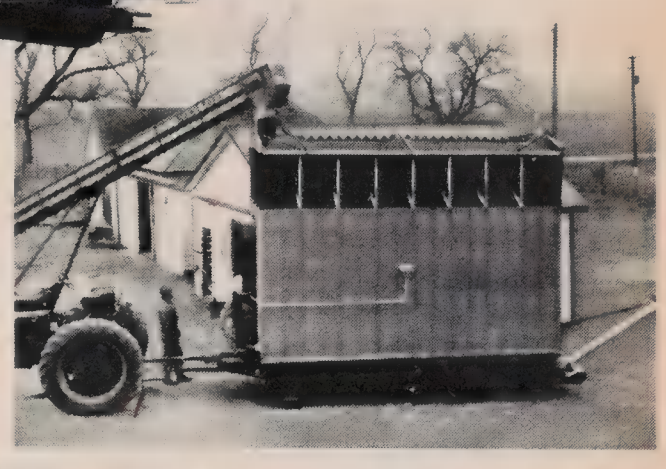
PROVIDING HOUSING as part of pay for full-time hired employees on a farm is in many cases not desirable, says USDA Research. Might better rent the tenant house to someone, add the value of housing to your employee's pay, and let him find his own house. His paycheck looks bigger to him, and any family housing discontent is then not directed at employer.

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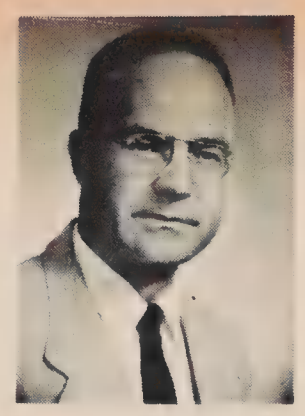
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EDITORIALS



by GORDON CONKLIN

THE '68TH PSALM

Irresponsibility is my shepherd; I shall not work.

It maketh me to lie down in the streets: it leadeth me beside the still classrooms.

It darkeneth my soul: it leadeth me in the paths of vandalism for protest's sake.

Yea, though I walk through the valley of the shadow of arson, I will fear no policeman: for the permissiveness of the populace is with me; their rod and their staff do not discomfort me.

The politician preparest a table before me in the presence of those I have looted:

He anointest my head with oily speeches; my glass runneth over.

Surely subsidy and poll-takers shall follow me all the days of my life:

And I will dwell in public housing forever.

TEACHER EFFICIENCY

The record shows that productivity per man hour in nonfarm industries has increased 48 percent just since 1950, and it's up by 164 percent in farming! As massive amounts of relatively cheap capital have replaced high-priced labor across the whole spectrum of our production activities, increased output per worker has been the single most important force in multiplying the material abundance enjoyed by the people of our nation.

By contrast, the output per worker in the teaching profession has shown no increase. Instead, pressure is steadily exerted by teachers for fewer pupils per class, more time off during school hours, and added numbers of teacher aides.

It seems to me that, in a society so clearly characterized throughout by objectives of greater output per person, the teaching profession needs to seek and accept ways to go and do likewise. My prediction is that the educational process will see far more machine-teaching and large-group instruction than in the past, as well as the use of other innovations to broaden the teacher-pupil ratio.

What do you think?

CONTRACT FARMING

Amidst all the hullabaloo over the use of dramatic means to gain more farmer bargaining power, many people have overlooked the fact that contracts are becoming ever more important in agriculture.

One of the latest moves is by Armour and Company, giving hog producers an opportunity to sell hogs to Armour up to six months in advance of delivery . . . at guaranteed prices. In addition to a guaranteed price, the contract specifies number of hogs to be purchased, exact delivery date, and an advance partial payment.

Contracts have been around in agriculture for a long time, of course . . . especially in the production of fruits and vegetables. Basically, they provide the producer an assured price . . . and the purchaser an assured supply. To gain this assurance, the farmer has to be willing to give up some of his prized independence . . . gearing his operation to market needs in terms of quantity, quality, form, place, and time. Furthermore, he must give up the gambler's thrill of "making a killing" if prices of the product under contract rise sharply in the open market. It's the old story of "a bird in the hand is worth two in the bush."

It's my opinion that the use of binding contracts between farmers and organizations purchasing farm commodities will continue to grow, and that it offers great promise as a framework within which farmer bargaining power can be constructively enhanced. It's a form of market discipline that makes sense . . . a way to "glue together" the whole production-marketing process from plant to plate.

AIR POLLUTION

Once upon a time, in a far-off city, there lived a trucking-company executive named Imaheada Jones.

The Jones family owned a summer home in the country, as did most everyone in their country club, and Ima would join his family every Friday night during that season for a weekend at "the farm."

One day, Ima drove joyously along the highway in his "Tiger 16," getting all of 8 miles per gallon . . . and blending a trail of exhaust smoke with thousands of other cars fuming along the expressway. He reveled in the hearty bellows of the snorting diesel engines powering the trucks he passed, thinking of the profitable tons being hauled . . . but completely oblivious to the trails of oily smoke hanging along the path of each one.

Starting on the second pack of cigarettes for the day, he impatiently tuned out a radio message by the American Cancer Society. Finally, he turned into the driveway of his weekend retreat . . . and smelled the faint odor of some manure spread recently on a neighboring farm.

"By gum, I'm going to see the health authorities about this," he grated, "this air pollution has got to stop!"

PLATITUDES & ATTITUDES

There is nothing wrong with platitudes like: Speed kills . . . Drive defensively . . . If you drink, don't drive. They are absolutely right. For everybody. But in the attitude of many of us, they are for somebody else, not us.

We have all observed, at one time or another, those drivers who go along cussing everything and everybody but themselves . . . fools behind other wheels, stupid pedestrians, faulty highways and defective vehicles. This is perhaps only human, but it is also irresponsible.

The responsible attitude reveals itself when the circumstances are actually **unfavorable** to the driver. The more adverse the driving conditions, the fewer the accidents. It is when the weather is nasty, the highways treacherous, and the traffic most congested that the driver's attitude is at its best. That is when he is aware of the common sense of what, at other times, may have seemed only threadbare preaching.

So, though it has been said to the point of boredom, it is an eternal truth that motor vehicle accidents can be reduced by the practice of caution, courtesy, and common sense.

Yes, the rules of good driving are largely platitudes. But no thinking person can deny that, if they had been given greater heed during just one year, there would be alive today some of the 52,200 people who were killed in U.S. motor vehicle tragedies during 1967. The 4,200,000 injured in that same year would have been spared the discomforts of physical injury . . . many of them crippled for the rest of their days.

Any improvement in the sorry record achieved on our streets and highways depends on whether enough of the so-called platitudes are accepted, and enough attitudes are changed by enough American drivers.

LULLABY

Milk prices at the farm in the Northeast are hitting all-time highs . . . and that's good. However, we all know that we get sleepy when filled up with a good supper . . . and dairymen may get sleepy when filled with milk prices that are better than ever before.

Well, milk can be filled, too, and filled milk isn't going to go away . . . the desperate need for expanded dairy product research and development has not diminished . . . and dairy promotion efforts are still pitifully small compared to those of competitive products. As a matter of fact, higher milk prices widen the possible price spread between ersatz milk and the real thing, making more crucial than ever the promotion of real milk. Unless an industry plans ahead and makes investments for the future when it is prosperous, it will really pay the piper when the next economic crunch comes!

Let's not go to sleep and let the barn burn!

GUEST EDITORIAL

Each generation has its own problems. This one is no exception. We seem to be surrounded by troubles . . . war and threats of more war, poverty and crime, and rising costs for virtually everything as inflation goes unchecked.

These are serious problems, and each must be reckoned with. But I also think it's a good idea every so often to look at the other side of the picture. For one thing, we live in the greatest nation in the world, with a form of government which, even with its faults and weaknesses, still is without equal. We enjoy a standard of living unmatched by any other nation or any other era. We have luxuries that most of the rest of the world can only dream of.

And thanks to the productivity of our farmers and the know-how of our industry, we are the best-fed and best-clothed people on earth.

Most of all, we have freedom . . . freedom of expression and of worship, freedom to chart our individual destinies. In this free enterprise system, you can have anything within reason, provided you are willing to make the sacrifice to obtain it. *(— Edmund H. Fallon, Executive Vice President and General Manager, Agway Inc.)*

American Agriculturist, July, 196

Doc Mettler Comments On:

PASTURE CHECKS

A few mornings ago I had the opportunity to ride with a good beef cattle man while he did his pasture check on about two hundred Angus. For years I had recognized the fact that on this particular farm heats were almost never missed, and cows never seemed to get in serious trouble calving, even when pastured on a hilltop half a mile from the barn. I had heard the term "pasture check" used, but never realized that this was as much of a routine on this farm as milking is on a dairy farm. In fact, I believe some of my dairy clients could learn much about heat detection from beef cattle men.

In dairying the milking procedure is the most important operation . . . it is the payoff. In beef cattle herds the payoff is calving, and you don't get calves if you don't see cows in heat. Sure, you can turn a bull loose to get your cows bred, but one bull can handle only about forty cows. In a herd of two hundred breeding-age animals that you want bred to freshen at the proper time you'd need five bulls. More important you usually want to breed your brood herd to a rather expensive bull. Who wants to turn a one hundred thousand dollar bull out to pasture?

On this farm two pasture checks are made by four-wheel-drive vehicle to detect heats early in the morning and again late in the afternoon. Groups of cattle containing cows due to calve are checked at about two a.m. and again in early afternoon. Heats are sometimes noticed at these times also.

Starts at Daylight

An early morning pasture check starts out soon after daylight. At this time of day cows are not hidden in the bushes but are in the open where they can be seen. Cows are not afraid of the sound or sight of the four-wheel-drive since they see it day after day. An experienced man soon learns where in each pasture he will find the cattle on certain types of days. He knows exactly how many cattle are in each pasture, and knows each animal by conformation and "looks" . . . besides, of course, having a notebook in his pocket with neck chain number, fresh date, last heat date, breeding dates, etc. On the dashboard is a clip board and paper. Notes are made as to who is in heat, or looks like she may need closer observation next trip out.

Seldom are cows noted actually riding each other. Often just the flick of an ear or the angle at which the tail is held will be different than it was the previous day. Discharges are noted, as well as roughed-up hair on rumps where cows have ridden. Many of these fat, heavy cattle seldom ride, however, and any change from normal behavior is enough to warrant a close second look.

Cows thought to be in heat are driven into the nearest corral later in the day. There, riding may be observed. Cattle to be bred a third time or more, or those with abnormal cycles, either too long or too short, or abnormal discharge, are schedule for a check by the veterinarian before breeding.

Records Important

Good records of heat expectancy and past history such as are kept in any cattle herd are of utmost importance. Records of past years are of extreme importance, trouble cows one year are apt to be trouble cows the next year.

In a dairy herd many heats are missed because no man has the job of really watching. Everyone must watch for heats, and report them to the one responsible person. When cows are going out of the barn to eat at the bunk or waiting to come into eat is no time to watch for heats. Watch your cows when you have nothing else to do. Then when they are in the parlor or stanchion for milking, look for skin off the pinbones, slight, clear discharge, and the typical swelling that takes place in the vulva of some cows when in heat.

This can be carried too far, too. The day before heat, a tiny, clear mucous string called the preheat discharge is seen. Don't breed on this, but use it as a warning signal. Don't be afraid to breed on "guessed" heats if the cow has not been serviced before. The inseminator or herdsman who puts more importance on "85 percent first service" conception than on numbers of cows bred to freshen within the year is kidding himself. Some cows never show strong heats, and if you don't guess a little you'll never get them bred. There is only one thing to do if you think a cow may be in heat — breed her. If in too much doubt, or for a second breeding by guess, consult your veterinarian.



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Personal Farm Experience



Left to right are Theodore, Rheinhold, and Paul Sussman.

COWS AND BLUEBERRIES

We are milking 78 cows and have a total (including young stock) of 115.

Before we went into dairying, Dad did some carpenter work and since 1940 has been harvesting 100 acres of wild blueberries.

When I was in my teens I worked at radio station WTIC with Frank Atwood. I bought some calves as a 4-H Club member, which was my start in dairying.

We built the barn in 1955 and added a bulk tank and milking parlor in 1965.

We grow 60 acres of corn, mostly on a farm we own at Southwick. We farm 400 acres, part of which we rent. Last year we put up some haylage and were so satisfied with it that we plan to put haylage in our 20×60-foot silo and put corn silage in a bunker.

We still harvest blueberries, 10 tons in a good year. Every other year we spread old hay in April and burn off the bushes.

We irrigate from several ponds when we get a dry spell. The berries are picked by high school students, about a dozen of them.

Three of us run the farm . . . my father Rheinhold, myself and my brother Paul. — *Theodore Sussman, North Lane, Granville, Mass.*

HATCHING EGGS

Two years ago Francis Townsend of Cazenovia, New York, quit producing market eggs, and began to produce eggs for a hatchery.

There were several reasons for making the change. His buildings were obsolete, and no one would buy the place and produce market eggs. Mr. and Mrs. Townsend were getting older, and could see no future in going in debt for a modern plant; anyway, they lived too near town to build a cage house. Odors would be a problem, and besides that, the profit margin in market eggs was shrinking.

The Townsends are happy with the change. The hatchery wants the birds on the floor, and now they have 10,000 in five houses. The hatchery furnishes the birds, the feed, and the medication. After the eggs are gathered they are fumigated, and the hatchery picks them up three times a week.

Pullets are delivered at the Townsend farm in the fall when 19 to 20 weeks old, and are kept for 10 to 12 months. Then the hatchery takes them, and the houses are cleaned and fumigated before another 10,000 pullets are brought in.

There is less work to do . . . no marketing of eggs and no raising replacements. The Townsends are also relieved of the cost of replacements, and have less money invested. As income, they get a definite price for every dozen eggs delivered to the hatchery.

A high school boy helps after school and during vacations, and a "moonlighter" works at the farm one day a week.—*H.L.C.*

MACHINERY COSTS

Machinery costs are a big expense item on a farm and yet equipment is necessary to save labor, increase output per man and get work done on time.

I'm told, however, that yearly equipment costs per cow or per acre vary a lot on different farms and we try to keep ours reasonably low.

For one thing, we do a lot of figuring before we buy a piece of equipment. We have all the necessary haying equipment because it's so important to get the hay in early. But we hire our grain combined and own a silo blower jointly with a neighbor. For some years we have worked together at silo filling time. We have hired corn planted with a 4-row planter.

We do all the repair work we can and keep machinery under cover so it will last. Two years ago we built a 40×84-feet tool shed with no posts to get in the way. Before that we stored equipment in a neighbor's barn and in a converted henhouse which we have since torn down.

Our farm comprises 155 acres, of which 115 acres is tillable, and supports 43 milkers and 20 head of young stock. We have only one cow in the herd that we purchased. The oldest producer is 12.

We raise some of the grain feed for the cows. Last fall we had approximately 1000 bushels of oats . . . and, because the crop was extra good, we picked quite a lot of corn. Usually it goes in the silo.

We think our soil is still too low in lime to grow alfalfa, so we sow a mixture of alfalfa, alsike, clover and timothy which we leave down three years. So far we have not planted corn after corn.

We have one son who is an engineering officer stationed in Korea and one in college. We also have two daughters, one a senior in high school and one married, and a younger son. Our farm is too small for two full-time men, but we do hire some help in the summer. — *Robert Brown, Groton, New York*

POULTRY CHANGES

William and Roger Brey (rhymes with rye) of Jeffersonville, New York, have 45,000 laying hens . . . 20,000 housed as floor birds and 25,000 in cages. Both agree that cages, because of reduced labor requirements, are the correct choice when building new poultry housing.

Recently, the Breys pulled out 6400 feet of stainless steel watering troughs and installed Hart "trigger cups." Reason involved labor saving again . . . troughs require too much time to keep clean. Besides, they like the fact that the cups provide a separate waterer for each cage, eliminating the possibility of disease spread by water traveling the full length of a long row of hens. Finally, the cups require less than half the water that was needed by the former steady-flow trough system.

In late May of 1967, the entire flock of 25,000 cage birds were moulted after 10 months of lay. Although they were then shelling out to the tune of 60 percent production, egg prices were depressed . . . and the Breys decided to "get a new flock" by keeping the one they had.

Birds were first subjected to two days (48 hours) without feed, water, or light. Then came three more days without feed, but with water and seven hours of light per day. On the sixth day, restricted feeding began . . . at the rate of 15 pounds per day per 100 birds. The restricted feeding was continued for two weeks (until a good feather drop), and the 7 hours of light went on for a month.

Hens came back in production in July and hit a 70 percent production rate . . . and were still at 50 percent when sold in February of '68. A 3 to 4 percent mortality was noted from nephritis (kidney damage) as soon as production started up again after the moult was completed. Bill and Roger believe that light control is critical in successful moulting procedure . . . especially at a time of year when natural day length is long.

Shell quality held up well . . . probably because birds were moulted quite young, and because oyster shell was mixed with mash pellets for the moulted flock. Birds were fed an 18 percent-protein ration from the time they began to re-feather until their body weight was regained . . . dropped back to 16 percent after that.

Operating under the business name of Harold Brey and Sons, this Sullivan County poultry operation is a family corporation. Both sons believe that incorporation offers considerable advantages. — *GLC*

THREE BROTHERS

We are three brothers . . . John, Ted, and Henry . . . who rented this 186-acre farm just south of Albany in 1929. It was idle at the time, so we put on a dairy, and in 1938 we bought it. We also rent another farm of about the same size, and have 100 head of stock, with 56 milking.

As we see it, the consumer should be told more emphatically about the facts of food production. Milk advertising is fine, and we support it, but why shouldn't local organizations invite their city friends to meetings and treat them to some real milk, butter, and cheese?

The producer is always blamed when prices go up, and most city folks think the farmer gets all the increase. Because all producers benefit, we feel all should support milk advertising. The middleman . . . the milk dealer . . . should do more, too.

Government is spending too much money and taxes are high. Farming near a city has disadvantages. When you spend money to construct or maintain buildings, you wonder if you can farm on your land long enough to get your money back. — *John, Ted and Henry Hillman, R.D.1, Selkirk, N.Y.*

TWO-FAMILY ENTERPRISE

We farm approximately 400 acres, plus 100 rented acres for crops, milk 94 cows at present, and have about 50 young stock. Milk is our only product.

Two years ago we built a free stall stable and increased our herd of 63. My son-in-law, Schuyler Smith, is now in partnership with me, so we figured we needed more cows to make a good income for two families.

We now find that it's less work to care for the 94 milkers than it was to look after the 63 in the old barn! The new barn can easily handle 100 milkers. This we expect to do shortly.

We have been stepping up our corn acreage and the yield per acre. Last year we grew 75 acres of corn for grain. It was harvested with a two-row picker-grinder and put in the silo.

We also filled a silo with corn silage, after we had used it for summer feeding of grass silage and haylage. We are cutting down on the amount of hay we bale, and are planning to put up another silo this summer.

We grow corn after corn . . . eight years on one field. We manure heavily, plow down 300 lbs. of a 15–8–12 fertilizer, and put on another 200 lbs. of 15–15–15 when we plant.

Last year we sold about 1,000,000 lbs. of milk, figuring out at half a million lbs. per man. We hire part-time help only during time of heavy work loads.

Especially in view of the threat of imitation milk, I feel we should

(Continued on next page)

spend more money for advertising milk. I am glad of the "positive letter" approach, but disappointed that it wasn't supported by every dairyman. This is just one of the modern day farming problems.—*Emmett Baumgartner, Manlius, N.Y.*

EXPANDED GRADUALLY

Bel-Stein Farm has been in the family for 40 years. Up until a few years ago it was run by Carlton and Harry Warne. When Carlton retired in 1965 his son, Duane, went into partnership with Harry. Carlton now spends the winters in Florida, but helps during the summer. Harry is now thinking of retiring, and when he does his son Donald and Duane will operate the farm.

Since Harry is planning on retiring this year, the future of the dairy on our farm is not certain. With our present feeding system we might work into growing beef animals or raising dairy heifers.

We now grow most of the feed for the cows, plus a considerable acreage of cash crops, including 100 acres of red kidney beans, 110 acres of wheat, 30 acres of soybeans, and for the last few years 35 acres of sugar beets.

We have a stanchion barn, and the cows have no pasture. In winter they are out in a yard every day, where there is a 20′ × 50′ silo with an unloader and an automatic bunk feeder. In the fall the silo is filled with corn, which lasts until May. Then the silo is filled with haylage for summer feeding.

Another silo, adjacent to the barn, holds corn silage for winter feeding. The cows also get alfalfa hay the year around.

On our adjoining farms there are two silos for feeding young stock. We grow 50 acres of corn, with 40 acres going in the silo, and 10 acres being picked. We take the ear corn to the mill, where it is ground. To it is added a 40 percent supplement, salt, minerals, and molasses. We grow 180 acres of oats. Of these we grind part on the farm and add to the mixture from the mill to make a ration with 14 percent protein. The rest we sell as a cash crop.

We raise our own replacements, using artificial insemination for the milkers, but keep a bull to breed heifers.

Before the farm was purchased by Harry and Carlton, the big crop was grapes. The soil is rather heavy, but grows good crops if handled right. Over the years we have expanded gradually. We feel that rapid growth of a business brings financial risk, and management problems. — *Bel-Stein Farms, Harry & Duane Warne, Romulus, N.Y.*

NEEDLE TECHNIQUE

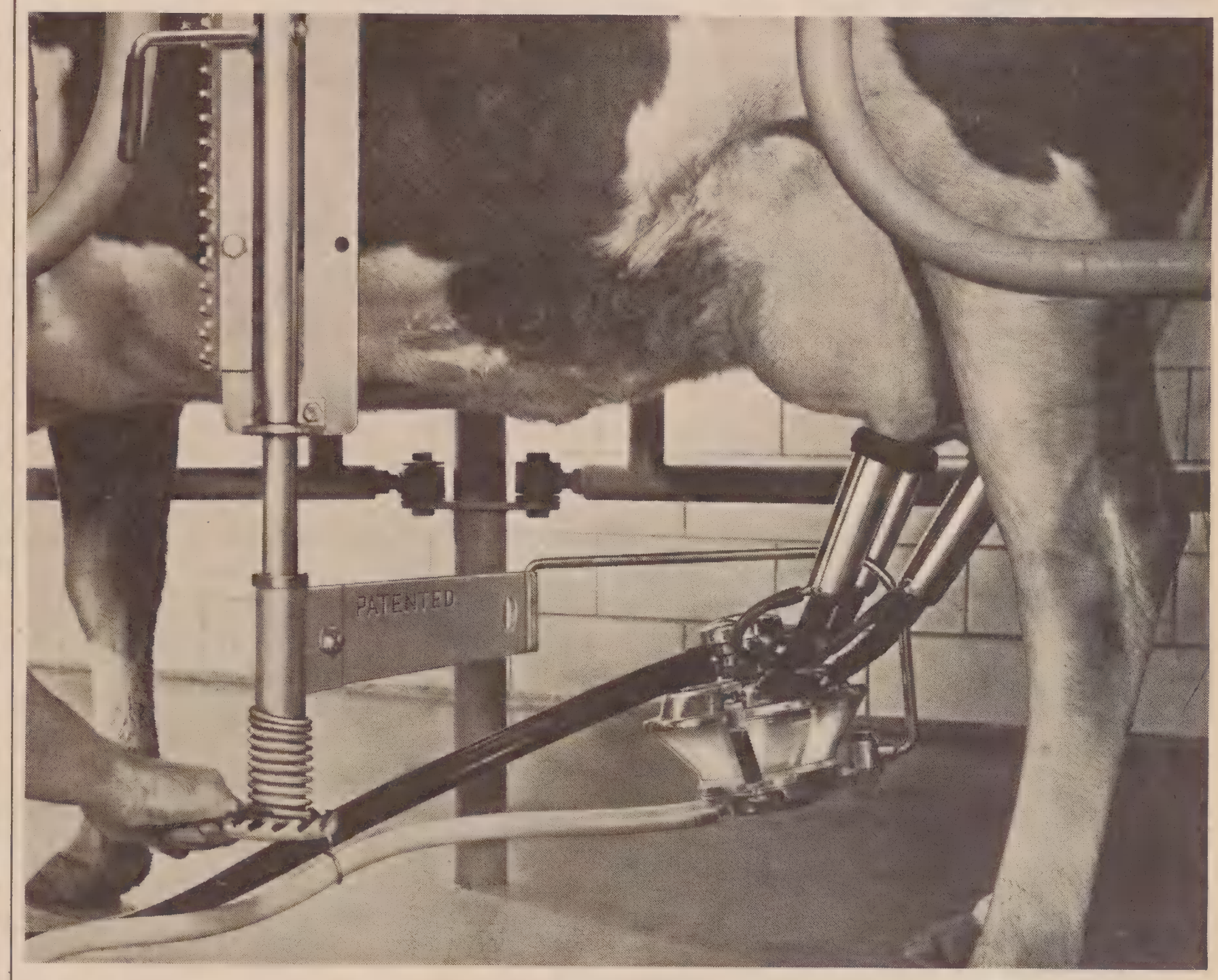
Erwin Derke of Franklin (Delaware County) New York, believes he prevents some cases of milk fever in his 45-cow herd by making an intraperitoneal injection just before freshening. It's an injection made through the skin and body wall on the **right** side (never the left) into the large abdominal cavity.

Material injected is same as used when "giving a bottle" to a cow already deep into the acute symptoms of milk fever . . . calcium gluconate, dextrose, calcium and phosphorous carriers, etc. Emergency injection, of course, goes into jugular vein of the neck and gets moved around fast by the blood stream.

The "gut injection," though, is absorbed far more slowly, and is considered by Erwin to be purely preventive. He doesn't give it to all cows . . . only those that his "cow sense" indicates may have trouble. — *GLC*



Officers of New York State Association of FFA for 1968-69. Left to right; seated: reporter, Robert Cady, Boonville; secretary, Robert Breckenridge, Alexander; president, Douglas Smith, Port Byron; treasurer, Gary Jones, Slate Hill; sentinel, George Kayser, Schoharie. Rear row: Vice presidents Ronald Beatty, Medina; Robert Schramm, Dansville; Dick W. Johnson, Harpursville; Walter Delles, Jr., Philadelphia; George Allen, Greenwich; and David Galley, Walton.



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The Surge Breaker Cup breaks the column of milk for safer, faster milking. Milk flows quickly and smoothly away from the teat and empties into the breaker cup to prevent milk backwash; eliminates irritating vacuum fluctuation; guards against possible infection.

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No wonder more dairymen milk with Surge than all other brands combined.

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* **Based on U.S. Census figures on herds of ten cows and over.**

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KEEP 'EM COOL!



by Amos Kirby
New Jersey Editor

DAIRYMEN and poultrymen have one thing in common that results in more milk and eggs at little or no cost. The thing is to keep the cows and layers cool. Animals are little different from humans. They work better, produce more, and are in greater comfort if the heat factor can be reduced to a livable level. Shade provides help for cattle; ventilators or some type of air conditioning in the poultry house pays.

When the temperature reaches 80 degrees, dairy barns and laying houses become uncomfortable, and there may be less milk in the bucket and fewer eggs in the crate.

The New Jersey College of Agriculture has prepared a special bulletin on hot weather management, available to Garden Staters through the Extension Service in your county, or the College of Agriculture at New Brunswick.

FIELD DAY

The name has been changed. It is now known as the Forage Machinery Field Day. For many years it was called Grassland-Dairy Field Day. It will still be held at the same place . . . Rutgers Dairy Research Center, near Sussex, on August 22.

The new feature in addition to forage grasses will be farm machinery in action over the rugged Sussex County terrain. Farm machinery is of greater importance in 1968 than ever before, and Rutgers is keeping step in having those new labor-saving machines in operation.

ASPARAGUS HARVESTERS

Mechanical harvesting of asparagus is here. There are six models in operation on the South Jersey Research Center in Cumberland County.

Selecting the proper harvester is like selecting an automobile or a tractor. The **selective harvester** appeals to many. In 1967 one grower harvested 70 acres with three machines and three men, and had a processing grade of 66 percent. The three men replaced a crew of 18 needed for hand-picking.

The **non-selective harvester** is getting the attention of growers seeking a labor-saving system. With it cutting two rows one may harvest 35 acres in a 10-hour day or less. This machine replaces 15 to 20 men.

Curtice-Burns is buying much of mechanically-harvested asparagus; they have a market for the tips.

The next machine that is being given its tryout is the **"snapper,"** which has been most successful in Michigan and other states.

Results are being tabulated at the Agricultural College on the merits of each harvester.

If one is depending on the fresh market, the selective harvester is promising. Can the harvester replace hand-cutting? If labor is available, hand-cutting will be around for several years.

A QUALITY PRODUCT

New Jersey sweet corn growers have found that spraying or dusting are "musts" if one is to have a quality produce for market. Few crops require more diligent attention to pest control.

Spraying starts when the corn is 1 to 2 inches high. This is for the **corn flea beetle** that spreads Stewart's disease (bacterial wilt). Control the corn flea beetle and one is on the road to a good crop.

Come July 1 look out for the **corn ear worm.** Here is a pest that calls for a timetable where hours, and even minutes, count. With 75 to 100-degree temperatures the eggs hatch in a matter of 24 hours. There is no putting off until tomorrow what should be done today.

After July 1 the **corn borer** is not far away. In fact, it can be expected again in early August, and is around until frost.

Charles Zimmerman, Sewell, a large grower, considers the corn ear worm the most disastrous. Once the egg hatches and the pest gets on the silken cords, it soon makes its way behind the husk, and is as safe from sprays as if it were behind a stone wall.

After the corn ear worm comes the **sap beetle,** often found by the consumer at the tip of the ear. A sap beetle can kill a sale faster than a traffic light.

Involved are at least eight sprays or dusts, based on stopwatch timing. If observed and properly timed, sweet corn can be a profitable crop, providing there is no glut on the market.

CROWNVETCH PROMISING

Another forage crop that looks promising in many areas of the Garden State is crownvetch, a perennial being grown experimentally this year. Crownvetch has gained a fine reputation as an erosion control planting, and it is now being accepted as a forage crop.

It has its fine points . . . and some defects. It is slow in becoming established, but it is long-lived, resists the alfalfa weevil, and produces good yields of high-quality leguminous cattle feed. The crop may be established from seeds, crowns, or plants, and is managed similar to alfalfa, clover, and other legumes.

It has been planted only on a trial basis this year, but it looks good to Extension men, who have been looking for some other forage crop.

50-TON COWS

Fifty-ton cows may not be the big news it was yesterday, but those 100,000-pound milk production records focus attention on a cost-reduction factor in replacements.

Tests on the farm of Charles H. Kirby, Gloucester County, prove the point. In 2,686 days after becoming two years of age a Holstein cow on the Kirby farm produced 100,331 pounds of milk and 3,832 pounds of butterfat.

According to county agricultural agent Ivan Crouse, cows with a high annual milk production record generally stay longer in the herd, and achieve high lifetime production levels. That is the answer to profitability. To attain this production level involves good feeding and management practices, coupled with genetic improvement.

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by Robert Clingan

DO YOU REALLY WANT TO BE HELPED?

A young psychotherapist was speaking to a group of ministers. He remarked, "Sometimes I have a patient who stays with me a long time but never does what is necessary to be healed. His problem is that he does not really want to be healed."

Then he proceeded to list the kinds of non-organic illnesses from which some people do not wish to be cured. There are people who want to carry their sorrows longer than they need to; there are some who allow themselves to be hurt more deeply than the situation justifies; there are some who wish to hide behind imaginary disabilities rather than face the demands life makes on people who are well. Some limit the opportunities of contact, growth, and thrust, and have either an illness or a memory to justify their rejection.

Our friend the psycho-analyst concluded this portion of his address with the statement that for some people nothing is as fearful or as frightening as wholeness and freedom . . . and the responsibilities that belong to people who are whole, and well, and free.

No wonder Jesus is recorded as having said to the man who spent so many years trying to get into the pool of Bethesda, "Do you really want to be healed?" Perhaps the man was proud of being "second" or "later than the rest" for so many years; it was upon this that his fame rested and his ego was built. If Jesus healed him this would be taken away; he would simply become another man that Jesus healed. So Jesus asked, "Do you really wish to be healed?"

Until the man answered that question in the affirmative he could not be healed. The resources for restoring wholeness and bringing healing to all kinds of non-organic disorders are many. None will work or even help unless a person really wants to be healed.

Stop hiding, stop excusing, stop limping, stop nursing old wounds and recent hurts. Decide that as far as you are concerned you want to be healed.

Remember, Jesus affirmed his Messianic role by declaring that at last the lame could walk, the deaf could hear, the blind could see, and the poor had the good news of the gospel preached to them. Some people of his day must have really wanted to be healed! What about ourselves today? **Do we who need wholeness, and freedom, and healing really wish to be healed?**



Topping – Mechanical topping and hedging of fruit trees is being done by a few New York State growers in an attempt to restrict tree size and reduce pruning costs. A specially-mounted sickle-bar mower is being used by Crist Brothers, Walden, and by Leonard Clark of Milton. The Forrence Brothers of Peru are using a commercially-developed hedger and topper. These growers agree that their method works best on blocks of younger trees once the desired tree size has been reached.

Detailed cuts are also required to complete the operation after the "shearing" has been done.

Strawberries – Under a new registration, the Upjohn Company's herbicide Enide may now be applied to bearing strawberries in all of the producing states. Enide, introduced in 1965, has been available for some time for use on **nonbearing** strawberries and on a variety of other crops.

In first-year plantings of bearing strawberries, application of Enide is recommended during the cool season while the plants are dormant. In older beds, application should be made after harvest and renovation of the bed. A second application may be made, but not within six months of the first treatment.

Collar Rot – R. L. Norton, fruit agent in Monroe and Orleans counties (New York), reports that collar rot correlation with MM 106 rootstock is not serious in the Northeast. He believes it to be a problem primarily in the irrigated orchards of the West Coast and British Columbia . . . as have been collar rot problems with EM II and MM 104.

Earn $266 more per acre of grass?

If you think Agway is putting you on, listen to Harold Sweet

Because he has calluses on his palms and likes to get dirt under his nails, Agway agronomist Harold Sweet *knows* what can be done with a field of timothy:

"As far back as ten years ago, I went up hill, down dale all over northern Pennsylvania with a Cyclone spreader, demonstrating what the right fertilizer, applied skillfully and in the proper amounts, can do on grass.

"What came of it? Three tons of timothy per acre instead of the usual 1½ came of it. And 50% TDN instead of the 42% almost everyone is getting right now.

"That's $266 more milk per acre of grass, at a cost of about $20 per acre for plant food."

Can you afford not to take Harold seriously? Look at how he figures it:

3 tons/acre @ 50% TDN	3000	lbs. of milk making nutrients
1½ tons/acre @ 42% TDN	– 1260	lbs. of milk making nutrients
You get	1740	ADDITIONAL LBS. OF TDN
SINCE each lb. of TDN makes	3	lbs. of milk
You gain . .	5220	lbs. of milk-making capacity
@ $5.70 per cwt.	$266.22	MORE INCOME PER ACRE



"Get on the Agway grass-fertilizer program now," Harold advises. "It's exactly the right time. Here's why:

"If you put on nitrogen in the spring, get on phosphorus and potash now, in time to increase grass production for second cutting and third cutting or aftermath grazing. This P and K will go through winter, give you big yields at next spring's first cutting, too.

"If you neglected to feed nitrogen last spring and, as a result, had a poor first cutting, apply a complete Agway plant food now. This will pep up your second cutting and third cutting or aftermath grazing, and help you recoup some of the loss from your June cutting of hay."

If you're not making the kind of hay Harold is talking about, stop in at your local Agway store or representative today. Have a 3-ton-per-acre grass program—or a similar job on your legume fields—worked out for you. *Agway Inc.*

Helping you get more income per acre is part of Agway's Complete Crop Service, which provides everything for your growing business—lime, fertilizer, seed, pesticides, and detailed technical information. Plus trained personnel and Agway-designed spreading equipment for fast, accurate application of materials.

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DWARF PLANTINGS

by Nenetzin White

With the advent of our smaller homes, the use of interior plantings, and labor shortages, this new type of plant is becoming popular. Some of our new homes are just overpowered by the regular yews, junipers and arborvitae, and now many of these plants are available in dwarf or prostrate forms. There are many varieties of dwarf yews and prostrate junipers such as Blue Rug, Bar Harbor, Andorra, etc.

Even the spruce family has many nice dwarf varieties. One is Gregory Spruce, a delightful small bun-shaped plant; another is Bird's Nest Spruce, reliably dwarf and called this because it often has a small depression in the center. Dwarf Alberta Spruce is one of our most prized small plants; it is bluish in color, a perfect inverted cone in shape, and dwarf as dwarf can be.

The pines give us Pinus mugho, a delightful globe-shaped dwarf with many variations in size. Arolta or Stone Pine seems to vary a bit, but for us remains reliably dwarf. The Tsuga or hemlock family gives us compacta, sargenti (weeping), and a few others. I hope this has whetted your appetite so you'll look up one or two of these plants. If you do, I feel sure you will become an avid lover and collector of dwarf conifers.

Another Interesting Group

Ericaceous plants used to mean heaths, but now commonly cover rhododendrons, azaleas, leucothoe, pieris, heaths, and heathers. There are many selected forms of rhododendrons and azaleas that are dwarf in the Northeast, also many varieties that are hardy for us in the Ithaca, New York, area where temperatures go down to minus 20 degrees or lower. You will have to check hardiness according to your zone, or better yet, buy them from a local nursery so you know they are hardy in your area.

Most of these plants do not like winter sun, so plant accordingly. Use peat moss and an acid-type fertilizer sparingly. Many of the Mollis Azaleas and their hybrids will tolerate most exposures. Windy areas, however, are seldom good for any of these plants. The wind will dry up the rhododendrons and whip the slender branches of the azaleas. A mulch is a must to help the plants retain moisture, both winter and summer.

A few of the heaths seem to be hardy in our cold climate, but many of the heathers are perfectly hardy. Both are delightful dwarf evergreen plants with pretty flowers of white, pink and yellow. For rock gardens, other small intimate gardens, patios, etc., they are just perfect. You have green color the year round and, by using different varieties, delightful blossoms most of the year. The majority of these plants are 4 to 10 or 12 inches in height and with a nice spread as they mature.

Plants in the Pieris family grow slightly taller, 6 to 10 feet, but they seldom attain this height in our area. Most widely known are Pieris floribunda and Pieris japonica, both of which were formerly classified as Andromeda. Both have beautiful urn-shaped white flowers in 5 to 6-inch panicles. These are real beauties where you can use a slightly larger plant.

The Andromeda family is one of my favorites. Andromeda polifolia or American Bog Rosemary grows 12 to 18 inches tall and has beautiful pale pink, bell-shaped flowers like tiny Japanese lanterns. Its leaves are leathery and shiny green. This plant and the others I've described in this article are wonderful to pick in the winter and add to a few leftover flowers or to use in a bouquet by themselves. There are more dwarf varieties of this same plant which are also lovely. Andromeda glaucophylla is a bit more upright and with the same little pink flowers. You might prefer these for winter arrangements.

I have tried to make you enthusiastic about some of these smaller evergreen plants and hope you will enjoy them as much as I have.



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Dates to Remember

July 1-9 - Boston Common Dairy Festival, Boston, Mass.

July 6 - New York Junior Beef Cattle Field Day, Dancote Farms, Lawtons, N.Y.

July 7 - New York Swine Association Field Day, Happy Acre Farm, Waterloo, N.Y.

July 8-9 - Educational Conference, National Institute of Farm and Land Brokers, Ithaca College, Ithaca, N.Y.

July 8-12 - Poultry Science Association Annual Meeting, Texas A & M University, College Station, Texas.

July 8-14 - National Cherry Festival, Traverse City, Mich.

July 10 - Weed Control Tour, Georgetown Substation, Georgetown, Del.

July 13 - New York Angus Association Field Day, Elm Place Angus, Avon, N.Y.

July 14 - Official Dairy Goat Show sponsored by Eastern New York Dairy Goat Club , Fairgrounds, Schaghticoke, N.Y.

July 17 - Massachusetts Fruit Growers, University of Massachusetts Farm, Belchertown, Mass.

July 17-19 - American Poultry Congress, Exposition Center, Cincinnati, Ohio.

July 20 - Annual New York Ayrshire Club Inc. Field Day, Sipher Greenbriar Farm, Gouverneur, N.Y.

July 20 - New York Shorthorn Association Field Day, Thomas Patton Farm, Windsor, N.Y.

July 21-27 - NATIONAL FARM SAFETY WEEK.

July 22-23 - First National Shorthorn Youth Conference, Sutherland Farms, Prospect, Ky.

July 24 - 34th New York and New England Apple Institute Annual Membership meeting at William Paladino's, Milton, N.Y.

July 26-28 - Reunion of the Pioneer Gas Engine Association, Inc., Fairville, near Newark, N.Y. Display of restored gas tractors, gasoline engines, etc. Public invited. $1 donation men only.

July 26-Aug. 3 - Delaware State Fair, Harrington, Del.

July 27 - Windham County Farmers Field Day, Putney School, Putney, Vt.

July 27 - Maine State Dairy Show, Windsor Fairgrounds, Windsor, Maine.

July 30 - Rhode Island Black and White Show.

July 31 - Connecticut Black and White Show.

Aug. 6-8 - Empire Farm Days, Lincoln Knolls, Canastota, N.Y.

Aug. 14 - Annual Science at Work Day, The Connecticut Agricultural Experiment Station, Lockwood Farm, Mt. Carmel, Conn.



"The Government shows us who's boss. They punch the check full of holes, and then tell us we can't fold, staple or mutilate!"

FORESTRY

Sweet Business—County Agent Don Huddleston of St. Lawrence County, New York, recently completed a three-year cost account study of some maple syrup enterprises. As usual with farm management studies, he found wide variations in levels of success. Cost per gallon (other than operator's labor) of syrup ranged from a low of $1.46 up to a high of $6.85! Return per hour of operator's labor ranged from a loss of $3.73 up to a gain of $7.93.

Gallons of syrup produced per bucket also had a considerable range . . . from .10 to .38, with around .25 being most common.

Anyone interested in more information should write Don at County Office Bldg., Court St., Canton, New York 13617.

EMPIRE FARM DAYS
Canastota, N.Y.
Aug. 6,7,8.

Dock Mill – An unusual sawmill and chipping operation, located near the Statue of Liberty, is being proposed by the Liberty Lumber Co. Raw material will be dock timbers and pilings from demolition of docks and piers in the New York Harbor area.

CONSERVATION BOOKLET

International Harvester Company has released a new 24-page booklet entitled "Soil and Water Conservation Is Everybody's Business."

Profusely illustrated, the booklet describes what conservation involves, recites the various classes of land, and points out that the owner should know his land and decide what it can do.

Copies of the booklet may be procured from local franchised International Harvester farm equipment dealers or by writing to Dept. AA, International Harvester Company, 401 N. Michigan Avenue, Chicago, Illinois 60611.

Now is the time to protect against mite damage

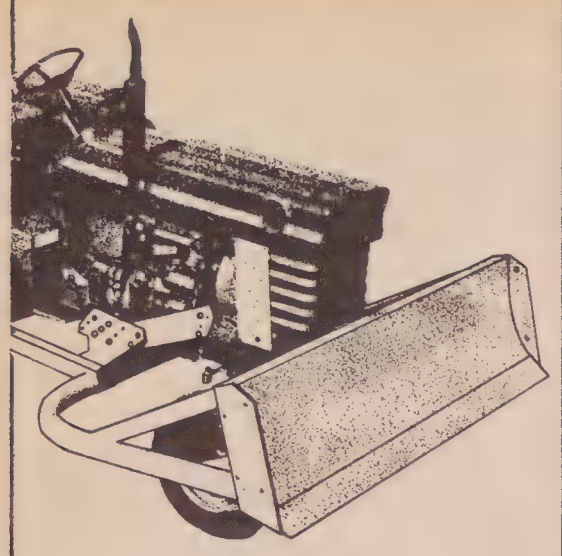
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Registered for use on both bearing and non-bearing trees, MORESTAN miticide may be used pre-bloom and post-harvest on a wide variety of fruits and in post-bloom applications on apples and pears. It is a carbonate, mixes easily with water, and can be used in most conventional spray equipment.

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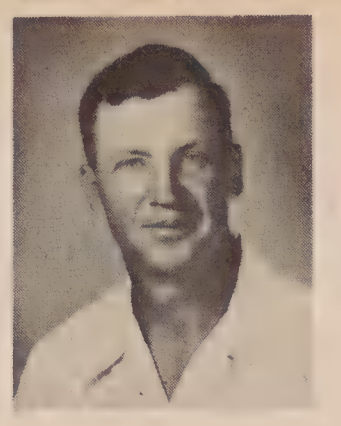
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Gayway Farm Notes

by HAROLD HAWLEY

HEDGES . . . AND HEDGES

The considerable activity among city people (especially executives and professional men) to buy farms as a hedge against inflation is one of the signs of our times. This is having the expected influence on farm land prices which were already strong.

It seems clear that land is one of the things sure to be worth something regardless of how far inflation goes, or how bad the reaction is following it. Historically, when the currency got to be nearly worthless in some countries and every effort was made to convert currency into "goods," land was one of the permanent, nonperishable "goods" most favored.

There no doubt is an additional reason for some to buy farms now as an income tax escape device. This is true not only of individuals but of many corporations. I get some bad thoughts about a business using a farm or farms as a way of escaping taxes. This means they may not be too concerned about the price at which the production of the land is sold . . . which makes for pretty rough competition!

A Good Thing

Most of us like to cash in on a good thing. Few would deny that land prices will likely go higher as long as inflation continues . . . and over the long haul. This makes it a temptation for farmers to buy another farm whether they really need it or not.

All of this is well and good . . . and good business provided we are talking about cash deals, or deals where the equity in the new purchase is high. An additional farm bought with a small down payment by a farmer who may still have other debts may turn out to be a real smart move, but certainly there is the risk that it may not be a hedge at all but a gamble of the first water.

No one got hurt worse following World War I, or following the crash in 1929, than did those farmers who were deeply in debt. Some of the best of the Corn Belt and Wheatland farmers had made it big during the World War. Thinking or hoping that the happy days would last a while longer, they bought another farm at greatly-inflated prices. When the bust came they had heavy indebtedness, high fixed costs, inflexible taxes, and sharply-reduced incomes to contend with. The new farm went . . . and along with it a lot of savings, or maybe the home place too.

I'm not even suggesting that the day of reckoning is just over the hill. I don't know either! What does seem clear is that the move which might be a real smart hedge for a man with money in his pocket might be a real disaster for the man who had to make his purchase with borrowed money.

HURRAH FOR NEW IDEAS

Last summer we replaced our weed and weevil spray tanks with some plastic jobs. We thought it nice to be able to see the level of the spray material as we moved along. This year when we got them out it seemed a nice switch not to see evidence of corrosion, as always happened on the metal tanks no matter how well we cleaned them up.

Our corn acreage continues to grow, so we planned to get a six-row planter for this year. However, due to delivery difficulties we ended up with a new 4-row model. It has fiberglass fertilizer tanks and seed hoppers. We were much pleased that the fiberglass enabled us to check the supply of both seed and fertilizer from the tractor seat.

Having greatly increased the fertilizer capacity of our planter, we were able to plant much faster than in former years.

The big pay-off came when corn planting was done and it was time to clean up the rig for storage. Those fiberglass tanks sure get my vote. Unless some accident occurs to the tanks they should outlast metal ones, which always seemed to corrode quite a bit between seasons even though we were regular old maids about cleaning them up.

MORE ACCURATE

The new planters of any standard brand sure offer a man a chance to plant more accurately than ever before. The larger fertilizer tanks mean fewer stops, and less climbing on and off the tractor. With comparable ground speed, this could easily mean planting another 8 to 10 acres a day.

We have gone entirely to the 24-cell plastic planter plates. This enables heavier stands, if that is the objective. Likewise, if one wants moderate stands, the extra cells enable the plate speed to be reduced, which should increase the certainty of a uniform drop even at faster ground speeds.

For years we had metal fertilizer hoppers over each row. The amount of fertilizer applied was regulated by changing the size of the opening in the bottom of the hopper. This was fine as long as the fertilizer was uniform, free-running, and dry. Let a lump of fertilizer block that opening and there was a row with no plant food. Then off came the hopper so the chunk could be removed.

With the new auger feed from our tanks, no such problems were encountered all season. It's nice to know that every row was fed as we went along. All these things mean a faster, better job.

GOLD

There's gold in your old fence rows if you are lucky. It seems that some people are going absolutely nuts over old barbed wire. We saw a collection valued at several hundred dollars with about 30 different styles and designs. Don't ask me where to market it, but if you have some of the old flat-twisted, one-strand barb, or some of the other old kinds, as we do . . . save it!

The Song of the Lazy Farmer

Of all the good things that I know, there's not a one that pleases so, as does a summer day that's blessed with rain that forces me to rest. On humid days as hot as fire, when my old back's begun to tire, there's no more welcome sight to me than black clouds coming up, by gee. It irritates poor neighbor's hide when he is forced to stay inside; I think a drought would please him more than being forced to skip a chore. But you will never see me boil 'bout anything that lessens toil, the sound of raindrops in my ear fills my whole being with good cheer.



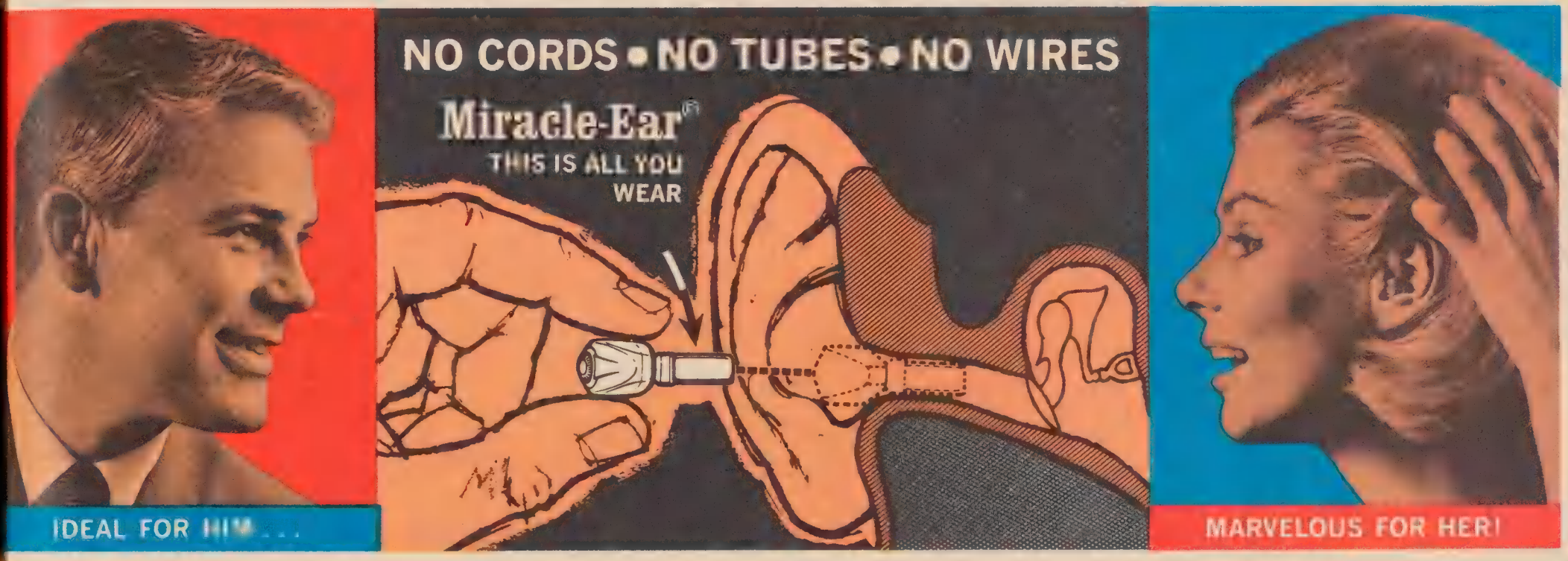
As soon as he has had his say, I hope poor neighbor goes away; then I'll head for my rocking chair and settle down without a care where I can kick off both my shoes and have myself a little snooze. Mirandy cannot beat the rain, no matter how it gives her pain, or yell that I'm a lazy cuss who will not work without a fuss. As long as ev'rything is wet, she can't make me work up a sweat; so I can listen to the drops and never think 'bout stock or crops; there's not a thing for me to do 'cept hope tomorrow's rainy, too.

American Agriculturist, July, 1968

Advertising Supplement to
AMERICAN AGRICULTURIST
July 1968

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FEELS COMFORTABLE ENOUGH. BUT IT IS SO TINY. COULD IT POSSIBLY HELP?

LATER... AT THE PTA MEETING

FRED, THIS IS MARVELOUS. I CAN UNDERSTAND THE WORDS. IT'S THE FIRST TIME IN YEARS I'VE HEARD SO CLEARLY

...AND WHEN YOU GRADUATE, BILLY, I'LL BE ABLE TO ENJOY EVERY BIT OF THE CEREMONIES...THANK HEAVENS!

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The catamaran, a modern version of the ancient Polynesian outrigger canoe, is a familiar sight at Waikiki. It comes right up to the beach to pick up vacationers for a sail to Diamond Head and back.

TAKE A FALL VACATION!

If you would like a wonderful, carefree vacation this fall, American Agriculturist offers you an exciting selection from which to choose. We will have three **Fall Foliage Tours** through New England (leaving October 3, 11 and 19), our annual **Aloha Week Hawaiian Holiday** (October 12), and a **Mexican Tour** (October 26). The Hawaiian and Mexican trips will be quite similar to those we had earlier this year.

The Fall Foliage Tours are deluxe bus tours, nine days in length, and the cost is only $299 from Albany, New York, back to Albany. We travel through the colorful Berkshire Mountains of Massachusetts, and our first night is spent in Wiggins Tavern in Northampton. The next day we visit famous Old Sturbridge Village and explore the 36 original buildings moved there from many sections of New England. Luncheon will be at the Village Tavern, and later in the afternoon we drive to Plymouth for overnight at Governor Bradford Inn.

Next come Cape Cod's interesting villages, Hyannis Port, Barnstable, Sandwich, and others. We also visit the many historic sites around Plymouth before going on to Boston. Sightseeing will include all the well known places in and around this famous city, including Lexington, Concord, and Harvard University's collection of glass flowers.

We'll enjoy lunch at Longfellow's Wayside Inn, the oldest operating inn in the Country. The only meal not included in the cost of your ticket is dinner the first night in Boston. This was purposely omitted to allow you to visit one of Boston's fine restaurants. Dinner the second night will be at famous Anthony's Pier 4 Restaurant.

Leaving Boston, we stop at Nathaniel Hawthorne's "House of the Seven Gables" in Salem on our way to Portland, Maine. The next day we drive through one of the best known resort areas in "The Pine Tree State" and pass huge Sebago Lake which covers 46 square miles.

Crossing the New Hampshire border, we find ourselves in the beautiful White Mountains, probably the Northeast's most scenic area. Mt. Washington and other peaks of the Presidential Range loom above us, and everywhere is the ever-changing colors of the autumn foliage. One morning we ride to the top of Cranmore Mountain on the Skimobile and then drive through Franconia Notch to see the beloved "Old Man of the Mountains."

In Vermont, we'll visit the Maple Grove Museum, the capital city of Montpelier, and the world's largest marble exhibit at Proctor before heading south for Albany and the end of our New England vacation. This is your chance to see where our Country's history was made in the easiest, most comfortable way possible.

Like all American Agriculturist tours, this will be an escorted trip, arranged by our tour agents, the Travel Service Bureau of Needham, Massachusetts. Your all-expense ticket covers everything — transportation, scheduled sightseeing, first class hotel accommodations, meals and tips. We will be happy to send you a free copy of the illustrated itinerary; just fill out the coupon and mail it today.

Aloha Week in Hawaii

Our fall Hawaiian Tour has been planned so we can visit the four best known islands and be in Waikiki for the colorful Aloha Week celebrations. On the large island of **Hawaii**, we'll see an orchid nursery, Hawaii National Park, Akaka Falls, the Parker Ranch, Kona, the City of Refuge, and many other beautiful and interesting places.

On the **Valley Isle of Maui**, we'll visit Iao Valley with its volcanic freak, "The Needle," and explore Lahaina, former capital of the Islands and historic whaling center.

Sightseeing on the **Garden Isle** of **Kauai** will include a motor launch excursion up the placid Wailua River to a beautiful fern grotto and a trip to Waimea Canyon, Grand Canyon of the Pacific. Most of all, we'll enjoy our hotel located right on famous Kalapaki Beach, one of the finest in the islands.

We'll take a full day's trip around the popular island of **Oahu**, with stops at Sea Life Park and the Polynesian Culture Center. On another afternoon, we'll cruise through Pearl Harbor and see the sunken USS Utah and USS Arizona, which have been left where they sank as a permanent memorial.

Our hotel is located on Waikiki Beach, and every evening during Aloha Week, colorful celebrations depict various events in Hawaii's history. There'll be time to attend the Hula Show, visit Ala Moana shopping center, and all the other fascinating places in Honolulu. Write today for our illustrated day-by-day itinerary.

Other Wonderful Tours

It is still possible to join the group going to **Spain and Portugal** on September 16, or to come along on our **Grand European Tour** which leaves September 4. On this marvelous vacation we will visit England, Holland, Germany, Austria, Italy, Switzerland, and Belgium. A highlight of the tour will be crossing the Atlantic on the luxurious Queen Elizabeth on one of her last voyages.

Some of the places we will see on our Spanish Holiday are Madrid, Barcelona, Palma, Granada, Gibraltar, and Estoril. An added attraction is crossing the Mediterranean for a two-day visit to Tangier, Morocco, on the African coast.

Whichever one of these fall vacations you choose, we promise you a wonderful time, for there'll be nothing to do but relax and enjoy yourself. Decide now to come with us.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me, without obligation on my part, the following tour itineraries:

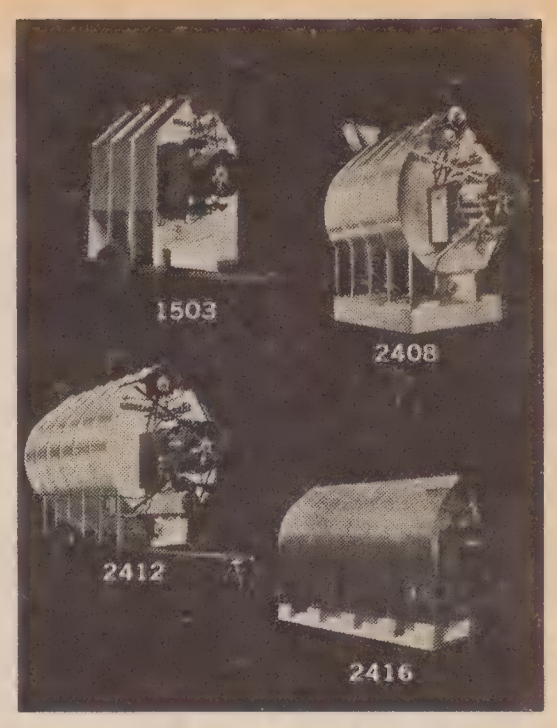
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BIG BUNKER

William Zuber of Churchville, New York, has built a big bunker silo measuring 50×170 feet (sidewalls 8 feet high) . . . expected to hold 2200 tons of silage. He figures it will cost $6 per ton stored, as contrasted with $11 to $20 per ton in upright silos. Sidewalls and floor of the bunker are made of cast concrete.

A new barn with 80 free stalls will be built near the new horizontal silo, and the present barn will be converted to space for 75 free stalls. By the fall of '68, he expects to have a herd of 150 milkers.

At present, one 12×50 cement-stave silo is being filled with high-moisture grain corn. Plans call for a second silo of the same size to also be filled with the same feed in the fall of this year . . . with still another 12×50 being converted to the same purpose if the crop is that abundant.



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Erwin Derke does no plowing, uses this heavy disc instead.

AND THAT AIN'T HAY!

by Gordon Conklin

THE gross income from selling nearly 800,000 pounds of milk a year comes to a tidy sum at the farm of Erwin and Hildegarde Derke (pronounced Durkee) near Franklin, New York. Without any additional help other than Mrs. Derke's mother, this family hopes to break through the "800,-000-pound barrier" in 1968.

On the farm only seven years, the Derkes have posted DHIC herd averages above 16,000 pounds of milk per cow for the past three years . . . the March, 1968, rolling herd average stood at 16,731 pounds. Herd size varies from 40 to 48 cows.

New Silo

In 1967, the addition of a 20 ×60 concrete-stave silo at Tupper Hill Farm signalled the move to feeding all silage for roughage. Haylage from 70 acres of meadow (cut three times) went into this tub . . . and later corn silage flowed into a 16×45 silo at the main barn, and a 12×32 at a nearby heifer barn. Using a baler borrowed from a neighbor, Erwin does put up a little hay for teasing the appetite of any cow temporarily off feed, but for all practical purposes hay is not a part of the roughage program.

"Haylage beats the weevil, beats the weather, beats the loss of leaves, beats the work," says Erwin. He has no rake, no mower, and no baler . . . likes the resulting lowered equipment costs. Once-over with a self-propelled windrower, then the chopper and self-unloading wagons . . . and haylage is out of the field untouched by human hands. Up the pipe of a high-capacity blower, distributed around the silo by the silo unloader . . . and the job is done without lifting an ounce!

It was a similar story for the 35 acres of corn grown in '67 . . . except the pickup chopper head is replaced with a two-row corn head.

The Derkes move fast when they start on haylage . . . began on the 15th of June in 1967's cold, late summer . . . and finished the first cutting of their 70 acres just eight days later! "Fill it fast, and cut it fine," is Erwin's advice. "If it's harvested right, there is no problem keeping haylage in good shape."

Haylage and corn silage are usually both fed each day . . . 60 pounds of haylage and 25 pounds of corn silage being a typical ratio. Ketosis was once a big problem, but has recently cleared up . . . perhaps because of some experimentation with using the grain ration components to get a reading of 1:1.5 for calcium-to-phosphorous ratio. "Maybe it cleared up primarily because of better quality roughage and more of it," says Erwin.

Protein Levels

Grain ration is 14 percent protein; Erwin is considering dropping that to 12 percent with high-protein alfalfa haylage. The grain bill, by the way, takes 25 percent of the milk check . . . lower than average for most Delaware County dairy farms.

Fertilization, though, exceeds the average for area farms. Tupper Hill Farm meadows get 600 pounds per acre of 0–15–30 per year . . . applied from a bulk spreader truck after first cutting most years, but already on in April of 1968's early season when fields were dry enough not to be cut up by heavy loads.

Heavy fertilization boosts yields, but also pushes the crop along fast so that haylage . . . with its fast-harvest potential . . . beats weather-dependent haying when it comes to getting top quality roughage early in the season.

Erwin Derke sizes up management decisions pretty realistically . . . as the nonfarm businessman he once was would be expected to do. "Even in America, you have to work for it . . . there aren't any streets of gold," such is his hard-headed appraisal of the economic system in general.

But here his work pays off well for him and his family . . . part of the hope that led them years ago out of East Germany toward a distant land.

WEISS-ACRES FARMS

"Speak to the cow as if she were a lady" . . . so reads a large sign over the door of the barn at the Henry Weissmann Farm on the Colesville Road near Harpursville, New York. Judging by the 111 placid and friendly cows inside, both Henry and employee Lyman Babcock follow that advice.

Back in the fall of 1967, Henry completed a free-stall addition to his existing dairy barn. The milking herd occupies the 113-stall "cold-barn" addition, and the old "warm barn" now houses heifers, yearlings, and calves. The herd is milked in 40 stalls of the old barn, and the 37 heifers housed there go to the free-stall area to eat silage while the three batches of cows are milked. A series of gates . . . and the silage bunk . . . keep heifers and cows separated.

More Attention

"We prefer milking cows this way," Henry says, "because we can pay more attention to each cow . . . as contrasted to a milking parlor setup." A dumping station is used to take milk from the five milker units being operated by two men, but plans call for a complete pipeline around the milking area. It takes 40 minutes to milk each batch of cows and 7 minutes to change batches.

The rest of the old barn is used to house yearlings in one stanchion row . . . and calves in 21 individual plywood box-stalls. This puts all the dairy animals in one building, an objective Henry believes important.

Bigger Herd

Another objective . . . this one for the future . . . is to have 150 cows, each averaging to produce 15,000 pounds of milk per year. With a labor force of owner, one full-time employee, and some part-time summer help, this would result in the production of a million pounds of milk per man. Present herd average is 14,300 . . . a 600-pound drop from former level when cows were in stanchion barn.

This is a herd fed heavy on corn silage. Hay is fed in a rack across the end of the free-stall area at the rate of 500 pounds per day . . . about 5 pounds per cow per day . . . and the rest of the roughage is well-dented corn silage.

Trench Silo

A trench silo holding 200 tons supplements the storage space in the 24×60 and 16×50 upright silos. The trench was opened up in late April of '68, and silage moved in two days into one of the uprights so it would enter the mechanized flow pattern for feeding.

Henry has had college training, majoring in business management and accounting. He spent three years as a management trainee with the Grand Union Company. From this background, he became especially conscious of the need for labor efficiency, and good merchandising. Weiss-Acres Farms are enrolled in DHIC, and in the electronic farm accounting service sponsored by the New York State College of Agriculture at Cornell University.

Before building the free stall addition, Henry looked at 25 to 30 barns remodeled (or built new) along the lines he had in mind. From all this exposure, he drew together what seemed the best ideas of each . . . including such things as neckboards 30 inches back from the front of the stalls, keeping stall beds cleaner.

Henry likes the performance of the new setup . . . and his 111 "ladies" give every indication that they agree! — *GLC*



New officers of New York State Milk Distributors, Inc. Left to right: Harold Ranger, Hornell, retiring president; Alson M. Fitchett, Poughkeepsie, newly-elected president; Francis Iseneker, Rome, treasurer; Howard Brown, Ogdensburg, newly-elected vice president.

HYDRAULIC HENHOUSE

By using a modified-stair-step triple-decker arrangement, Leroy Kemp of Smithboro, New York, (Tioga County) has room for 16,000 laying hens in a one-story building 32×224 feet. Cages are in four rows, each row 200 feet long . . . with three birds in each 12×16-inch cage.

Dropping boards beneath the top and middle rows are presently made of one-fourth-inch pressed board, but moisture has curled them. Leroy says, "They should be either exterior plywood or asbestos board."

Hand-Scraped

Dropping boards are not machine-scraped at present, but plans are underway for attaching scrapers to the battery-powered feed cart so feeding and scraping could be one operation. The Kemps scrape a row of dropping boards one day, then clean the pit underneath the next day . . . after droppings are softened by water remaining in shallow pits. Each pit is cleaned once a week.

Pits are emptied by a "floating dam" pushed along by water pumped in behind it. The "dam" moves slowly along the pit, shoving droppings ahead of it toward ultimate discharge into a 15,000-gallon tank measuring 10×20×30 feet. This tank is divided by baffles into three smaller tanks, each 10×20 feet. Solids settle out in two of the tanks, and water to flush the pits is pushed from the third one by a 200-g.p.m. submersible sump pump.

An agitator unit stirs up the solids at clean-out time, and the slurry is moved by tank-spreader to fields . . . the Kemps have 150 acres of land. It's possible to go two months between cleanings of the holding tanks.

Other features of this recently-completed building include:

— Three-inch insulation in both ceiling and sidewalls, with plastic vapor barrier all around.

— Exterior plywood forms the inside wall (¼-inch) and outside skin (⅜-inch).

— Seven air-discharge fans, all 36-inch, are arranged in two banks each . . . plus one in the center. Two cut in at low-volume speed when house temperature reaches 50 degrees; the same two go to high volume at 55 degrees. Two more start up at 60 degrees, and another two begin rolling at 65 degrees . . . with the seventh cutting in at 70 degrees. Air comes in through slots around the periphery of the building at the eaves, but there are no air intakes for 12 feet each side of the fans.

— Roofing is galvanized steel, each sheet 18 feet long going from peak to eaves, so there are no end laps.

— Two outside vertical steel storage bins store feed, each with a capacity of 13 tons. There have been moisture problems in one bin (auger froze and sheared drive pins one cold day). The Kemps clean out a bin very thoroughly when it's emptied . . . believe this is key to living with this type of storage if it's to be left unhoused.

— A 25 K.W. auxiliary generator is very much a part of the equipment, for birds would be in real trouble without electric power.

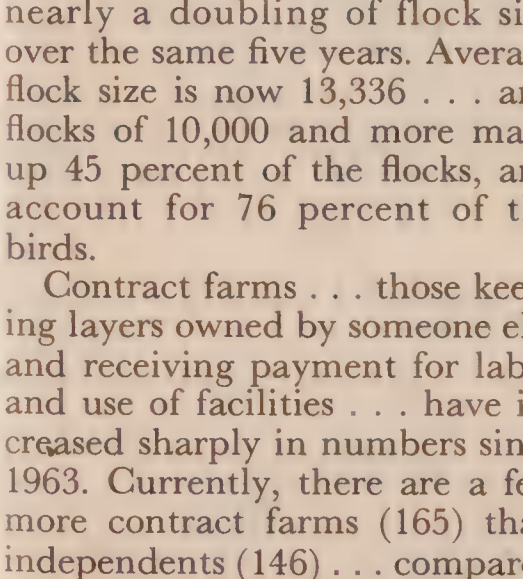
— Plastic pipe carries drinking water throughout building.—*GLC*

MAINE POULTRY

A report on a 1968 survey of 311 commercial table egg farms in the Pine Tree State shows the expected decline in number of farms as compared to 1963, and nearly a doubling of flock size over the same five years. Average flock size is now 13,336 . . . and flocks of 10,000 and more make up 45 percent of the flocks, and account for 76 percent of the birds.

Contract farms . . . those keeping layers owned by someone else and receiving payment for labor and use of facilities . . . have increased sharply in numbers since 1963. Currently, there are a few more contract farms (165) than independents (146) . . . compared to only one-third contract five years ago.

For details, contact Professor Frank D. Reed, Extension Economist, University of Maine, Orono, Maine 04473.

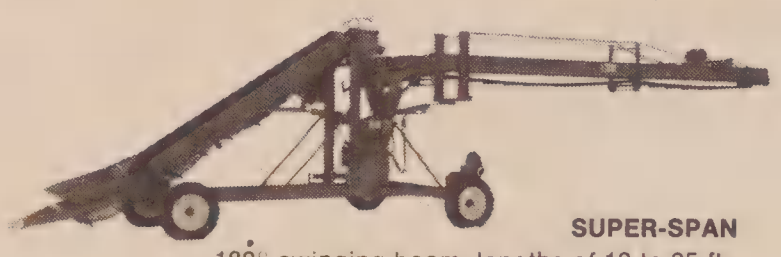


"Then I said 'Nobody's going to tell ME how much wheat to raise.' "

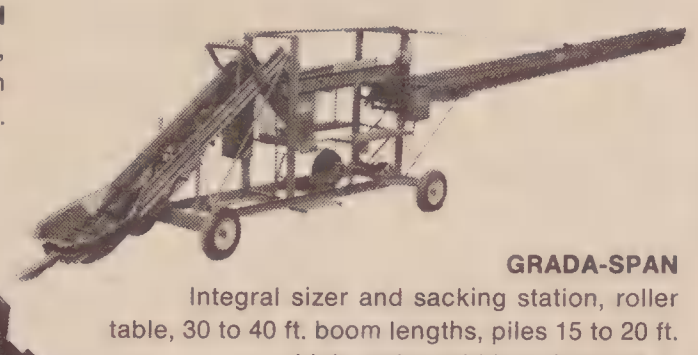
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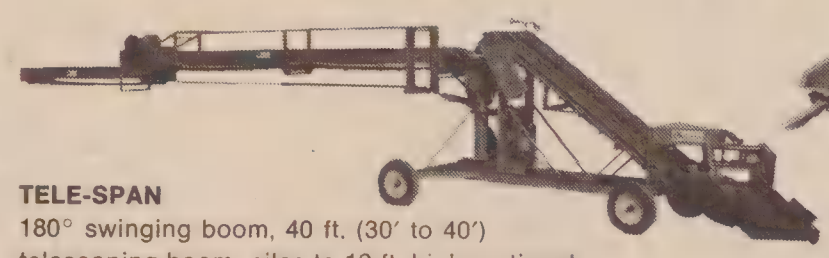
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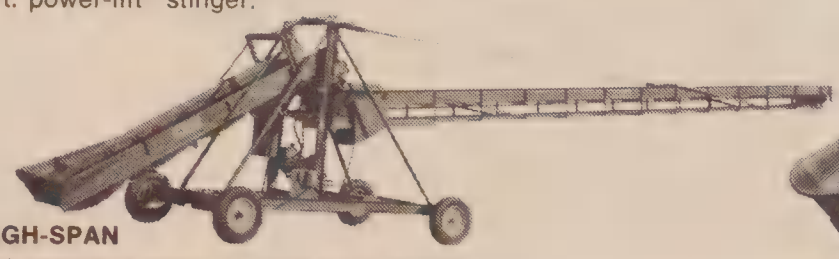
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NEW MILK ORDER

The U.S. Department of Agriculture has issued a Federal milk marketing order to regulate the handling of milk in the Eastern Ohio-Western Pennsylvania marketing area. The order will become effective July 1, 1968.

USDA's Consumer and Marketing Service officials said approval of the new order was determined in a referendum in which 7047 dairy farmers, or 82 percent of the 8582 voting, favored the issuance. Approval by at least 67 percent is required.

The order will set minimum prices to dairy farmers for milk sold in the designated marketing area. This will include the present marketing areas of the Northeastern Ohio, Youngstown-Warren and Wheeling Orders, which will be merged into a single Order. Additional territory in 14 Pennsylvania and 6 Ohio counties also will be included in the Eastern Ohio-Western Pennsylvania marketing order area. The Pennsylvania counties are in the Pittsburgh and Erie marketing areas.

WINDMILLS

Recently we had a request from a reader about windmills, and at that time we were not able to help.

Since then we have learned that windmills are not out of the picture as much as we thought they were. There are about 5000 of them made in the U.S. each year, the bulk of them purchased by cattle and sheep ranchers. Some are bought merely for sentimental reasons, like the Detroiter who bought one to irrigate his fruit trees . . . and was disappointed because it didn't squeak like the one he remembered from his childhood!

The leading manufacturer of windmills is Braden-Aermotor Corporation, Broken Arrow, Oklahoma, and they are also manufactured by Dempster Industries Inc., Beatrice, Nebraska, and by Heller-Aller Company, Napoleon, Ohio.

FARM CREDIT DIRECTOR

Lou Longo of Glastonbury, Connecticut, has been nominated as a director of the Federal Farm Credit System, with headquarters at Springfield, Massachusetts. If elected . . . as seems certain . . . he will be an excellent spokesman for the farmers of the Northeast.

At present Lou is president of the Consolidated Milk Producers Association, which recently was joined by two other dairy organizations. He operates a dairy farm near Glastonbury, with well over a hundred purebred Holsteins in a free stall setup, and with a bunker to hold corn silage for the herd. Milk production per cow is right at the top for the state. — *H.L.C.*

Steer Futures—Anyone interested in knowing more about futures trading in "choice" grade steers should write the Chicago Board of Trade, 141 West Jackson Blvd., Chicago, Illinois 60604. Ask for a copy of "Futures Trading In Choice Steers" . . . it has 32 pages, and thoroughly explains the arrangement.

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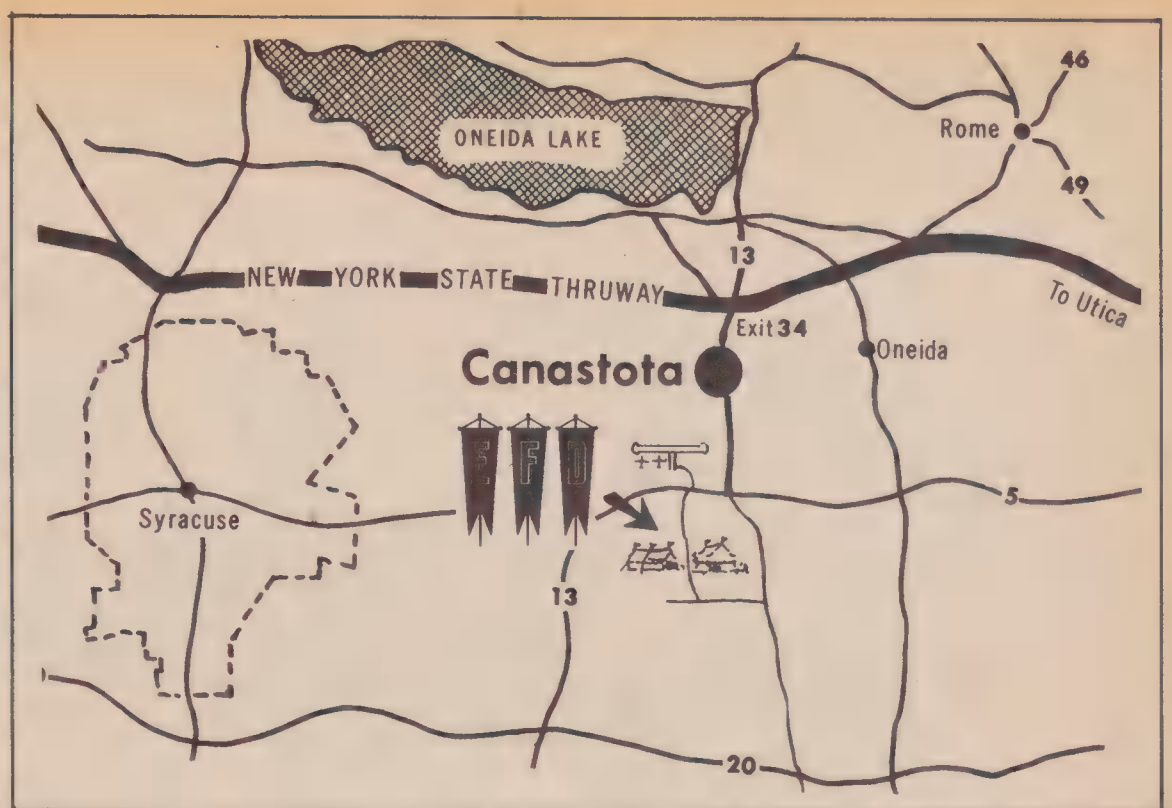
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SEE THE NEW MODELS IN ACTION!

FREEZING SUMMER'S BOUNTY

by Alberta Shackelton

WITH A FREEZER, you can enjoy the delicious flavor and bright colors of garden-fresh fruits and vegetables the year round. High quality food is the starting point for any good frozen product, and some varieties freeze better than others, so use these whenever possible. Here are other suggestions for making sure your frozen foods will arrive on the table in A-1 condition.

Packing and Freezing

Have foods and sirups cold to speed up freezing time. Pack food tightly to cut down on the amount of air in package and press air out of unfilled part of bag. Allow ample head space for expansion during freezing. Seal carefully; freezer tape may be used if there is any question of a tight seal. Label all packages with name of product and freezing date.

Fast freezing and a constant temperature of 0°F. or lower are necessary to prevent formation of large ice crystals. Your freezer temperature should stay between −5° and +5°F. Place each package so it comes in contact with cold surface of freezer and have about an inch space between packages. After freezing, packages may be stacked. Freeze small amounts at a time, so foods will freeze faster.

Freezing Fruits

Most fruits have better texture and flavor when packed in sirup or mixed with sugar to draw out enough juice to cover fruit. However, some fruits such as blueberries and rhubarb may be packed dry in the container and frozen without sugar. Another way is to spread out the fruit in single layers on shallow trays and place in freezer. Remove promptly when frozen and package.

To **dry sugar pack** juicy fruits and those that do not darken, place about a quart of prepared fruit in bowl, add correct amount of sugar, and quickly but gently mix with a large spoon until juice is drawn out and sugar is dissolved. Pack in containers and, if desired, place small piece of moisture-resistant paper between fruit and lid to keep fruit submerged in liquid.

To **sirup pack** whole fruits and those that darken, prepare sirups ahead of time and chill. For each quart water, use 2 cups sugar for a **light sirup**; 3 cups sugar for a **medium light sirup**; 4 cups for a **medium heavy sirup**; and 5 cups for a **heavy sirup.**

Be sure sirup covers fruit so top pieces will retain color. Again, use paper between fruit and lid to keep fruit submerged. To prevent darkening of light fruits, dissolve ½ teaspoon crystalline ascorbic acid in 1 quart chilled sirup, or use one of the commercial preparations and follow manufacturer's directions.

Freezing Vegetables

Blanching in boiling water followed by rapid chilling before packaging is a **must** when freezing vegetables to retain color, flavor, and texture. The time for blanching is specific for each vegetable. About 1 gallon boiling water is required to blanch 1 pound of most vegetables (use 2 gallons for leafy vegetables such as spinach).

Place vegetable in wire basket, colander, or large strainer and lower into rapidly boiling water, keeping heat high. Cover and start counting time. Water should return to boiling within one minute.

Following is a timetable for blanching some of the more common vegetables.

Vegetable	Scald in 1 gal. water	Minutes
Beans, snap	1 quart	2
lima	3 cups	1½, small 2½, large
Broccoli	3 cups or 12 stalks	3, small heads 4, large heads
Brussels sprouts	3 cups	3, small 4, medium 5, large
Carrots	3 cups	3
Corn	2 to 4 ears	5, small 8, medium 10, large
Peas	2½ cups	1
Summer squash	3 cups	3 to 4

Scald only recommended time, or vegetable will be overcooked. Remove basket from water and plunge into ice water to cool quickly. Drain and package at once, using directions given for dry or loose packing fruit.

Freezer Jams

Uncooked jams and jellies with all the flavor and color of fresh fruit have become popular and may be made with either liquid or powdered pectin. They may be stored in the refrigerator for use within a few weeks or in the freezer for a year. Blackberries, raspberries, and strawberries make good uncooked jam. Do not interchange recipes for liquid and powdered pectin.

BLACKBERRY or RASPBERRY JAM

1½ quarts fully ripe berries (to make 3 cups)
1 box powdered pectin
¾ cup water
5¼ cups sugar

Completely crush, one layer at a time, the fully ripe berries. If desired, sieve half of pulp to remove some seeds. Measure into large bowl; if necessary, add water to make exact amount.

Measure sugar, add to fruit, and mix well. Combine ¾ cup water and powdered pectin in saucepan, bring to boil and boil 1 minute, stirring constantly. Stir into the fruit mixture; continue stirring 2 minutes. A few sugar crystals will remain. Quickly ladle into scalded, dry jars and cover at once with tight lids (no paraffin necessary). Leave at room temperature until jam is set(takes up to 24 hours). Store in freezer or refrigerator. Makes about 7 ½-pint jars.

Note: The above material is taken from the following bulletins:

Handbook for Freezing Foods, Cornell Extension Bulletin 1179, published by N.Y.S. College of Home Economics. Available for 50 cents from **Mailing Room, Research Park, Cornell University, Ithaca, New York. 14850.**

Home Freezing of Fruits and Vegetables, Home and Garden Bulletin No. 10. To obtain a single free copy, send postcard request to **Office of Information, U.S. Dept. of Agriculture, Washington, D. C. 20250.**



Photo: N.Y.S. College of Home Economics

Shown here are materials used for packaging frozen fruits and vegetables. Included are plastic containers, waxed or plastic lined cartons, and moisture-proof bags and wrapping materials.

VISITING with Home Editor Augusta Chapman

First, just a word about this year's **New York State Fair,** which will run from August 27 through Labor Day. Premiums for the various Art and Home Center competitions will total $5,815, and this should be an incentive for many of you women to enter them.

Closing dates for sending in entry blanks are as follows: Home Arts and Crafts, August 2; Senior Citizens, August 9; Foods (Creative Cooking), August 16. For more information, send your request for specific premium books to: **Entry Dept., New York State Fair, Syracuse, N.Y. 13209.**

Family Planning

A few weeks ago, I attended a luncheon meeting of the newly formed unit, "Planned Parenthood of Tompkins County," here in Ithaca, New York. This is an affiliate of Planned Parenthood-World Population, a national voluntary family planning organization. A leaflet I received at this meeting gives information about the organization's work, and I quote from it.

"Family Planning is a basic human right. To help parents make informed decisions about the size of their families, Planned Parenthood's major goal is to make birth control universally accessible.

"Wherever growth of population makes excessive demands on the supply of food, living space and natural resources, the quality of individual human life is endangered. Planned Parenthood alerts the public to population problems in the United States and in the world."

Explosive population growth is now universally recognized as one of the major roadblocks to economic and social progress, and President Johnson calls it "the most serious challenge to the future of all the world." Wanting to help in some way, it seems that the best thing I can do is let all our **American Agriculturist** readers know how you can get any information you may desire. Here's what to do:

1. Consult your telephone book (look under Planned Parenthood or Birth Control) for the Planned Parenthood Center nearest you.

2. Ask your physician or inquire from your local health department about the facilities available in your community, in hospitals or through public health facilities.

3. Or write to Planned Parenthood-World Population, 515 Madison Ave., New York, N.Y. 10022. This is the Northeast Regional Office and covers all the New England States and New York.

The Mid-Atlantic Regional Office is located at 1605 Race St., Suite 5, Philadelphia, Pa. 19103. Those of you who live in Delaware, District of Columbia, Maryland, New Jersey, and Pennsylvania should write this office.

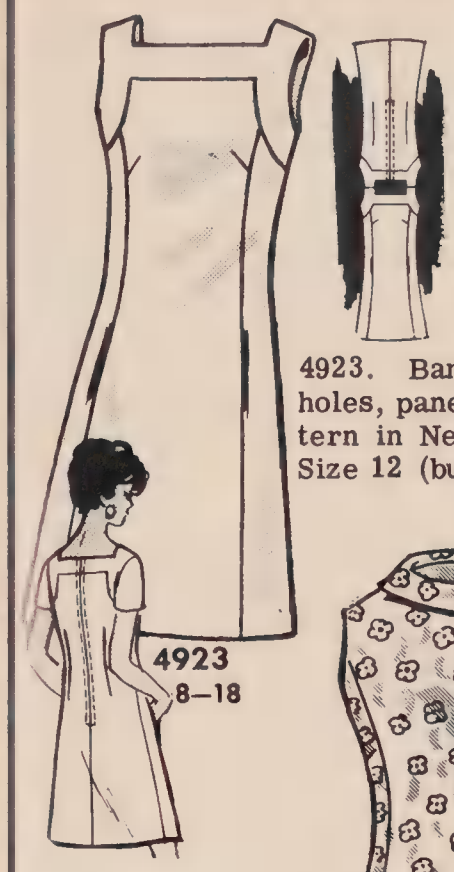
2000 A.D.

Do you remember, as a child,

(Continued on next page)

The Clothes Line

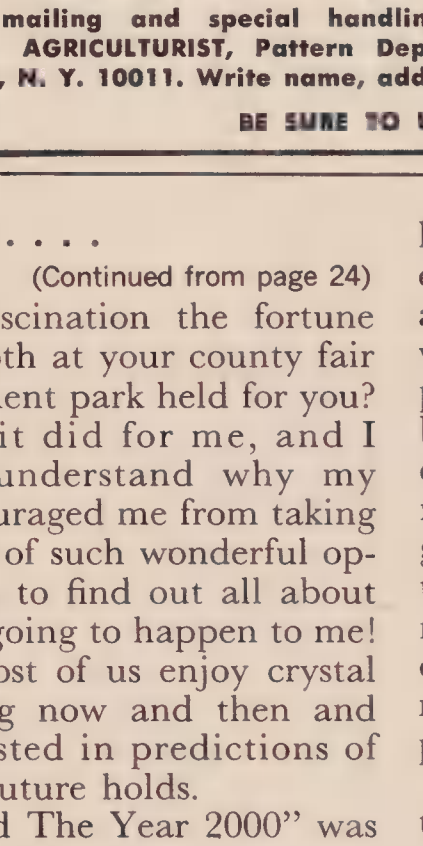
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EFD

Empire Farm Days

Lincoln Knolls, Canastota, N.Y.

August 6, 7, 8, 1968

The big outdoor farm show of the Northeast will feature everything new in farming . . . chemicals, equipment, materials handling, homestead improvement, buildings, and much more.

Visiting

(Continued from page 24)

what a fascination the fortune teller's booth at your county fair or amusement park held for you? At least, it did for me, and I couldn't understand why my folks discouraged me from taking advantage of such wonderful opportunities to find out all about what was going to happen to me! I think most of us enjoy crystal ball gazing now and then and are interested in predictions of what the future holds.

"Toward The Year 2000" was the subject of the Eighth Annual Institute sponsored by the New York State College of Home Economics at Cornell, and one of the speakers, Austin H. Kiplinger, stated what he thinks the 21st Century has in store for us. As editor of the **Kiplinger Washington Newsletter** and publisher of **Changing Times** magazine, Mr. Kiplinger seems particularly well qualified to make predictions.

Mr. Kiplinger believes the United States' population will rise to more than 300 million by the year 2000, with 100 million people added to our metropolitan areas. This means two-thirds of our people will be living on only three percent of the land. The median annual income of all families in the United States will be $25,000 compared to $8,000 today.

Rapid transit, much of it by air with vertical take-offs and landings, will make round trips of 100 miles a day to the office a normal thing. More wives will work (50 percent compared to 37 percent today), and families will be separated for a greater part of the day. There is an urgent need to plan now for better group care of children. Family ties will be further loosened, with more and more young people acquiring their values from others, rather than from their own parents.

Mr. Kiplinger predicts that the current "accent on youth" will have subsided somewhat by the year 2000, also that the birth rate will have tapered off. Medical science will keep people alive longer.

We will live in a cashless society, using credit cards, bookkeeping transfers, etc., for all transactions . . . the tourist air fare to Europe will be comparable to today's fare between New York and Chicago.

Tension with Red China will still be the center of international concern; people will have to learn to cooperate for survival . . . and we will because of necessity, not ideals. There will still be poverty, for today's poor children will not be able to overcome all the effects of their surroundings in the next 32 years.

But despite everything, Mr. Kiplinger feels we will "muddle through" and achieve some sort of stability without the much-feared financial "crunch."

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DANGEROUS SITUATION

I consider this one of the most important statements I have ever written. — E. R. Eastman

In the next few moments I want to discuss with you one of the most serious problems that has ever faced people of America, and to ask you to give serious thought to what can be done. I refer to the rioting and other misbehavior of our young people. I love young people, and think my experience as parent, teacher, regent, college trustee and student counselor has given me as good an understanding of what they think and what they are as any one . . . but I certainly do not have all the answers to why many students are acting as they are now.

Anarchy and Chaos

As you know, in the past year or two college students have taken part in many sitdown strikes, mass demonstrations against college rules, seized college buildings, held college officials prisoners in their own offices, forced some of the officers to resign, and in general have defied law and order and got away with it without punishment. Unless this situation can be corrected . . . and soon . . . in this and in other countries equally involved, we face complete breakdown of law and order, anarchy and chaos.

I am told that discipline is also breaking down in many high schools, and even in elementary schools.

Dangerous Minority

Let me hasten to say that only a minority of young people are involved. But their number seems larger than it is because it is this minority who make the newspaper headlines and the television news. Of the many thousands of students in a large university only a few hundred make all of the trouble. But the difficulty is that many ordinarily good young people, full of life and spirits, come to see the show and get carried away by excitement. **The minority now involved could soon become a majority unless the trend toward lawbreaking is stopped.**

For "Kicks"

In talking to me about some "march" taking place in some other city, a girl student said to me, "Oh, how I wish I could be there." When I asked her what the object of the march was she didn't know, she just wanted to go for "the kicks."

Another student who was complaining about some college rule which I thought was just and necessary said, "I want my freedom."

What some of them really want is not real liberty or freedom but license to do anything they want to do. For example, there are demands from students that there shall be no curfew rules for girls, nor rules that forbid men from visiting girls in their dormitories any time day or night.

There is a growing attitude, not only with young people but with older ones who should know better, that they have a right . . . or "freedom" . . . to disobey any rule or law with which they disagree. If that right or "freedom" is persisted in and granted, how long will any of us have any real freedom?

What Are the Causes?

What are the causes of this very serious situation? There are many . . . but three stand out like sore thumbs.

The first of these is television. The child learns more of either right or wrong in the first ten years of his life than he ever does again in a similar period. Once learned it is almost impossible to change it. How could a child help but get worse ideas about law and order and violence than he does from watching the television shows from babyhood onward . . . shows that constantly depict shooting, fighting, murder, and death? Think of the "education" your child is getting if he sits glued to a television set every day of his life, "education" in violence and wrongdoing. How can he help but conclude that all real life is that way?

Don't Touch My Johnny

The second cause of the whirlwind of violence among young people that could wreck our homes, schools, and colleges is the idea that a child can do no wrong and should never be punished. That idea was started by some leaders about a generation ago, and we are now reaping the awful results. Young mothers were told that they must never lay the hand of correction on their child, or allow anyone else to do so lest "his spirit be broken."

That child was not long in catching on. He soon learned that he could get away with anything without fear of consequences. He has now grown to adulthood, and many are continuing to "get away with it." Right discipline is a fundamental principle of right, and must be learned young.

Our grandfathers and grandmothers believed in no such philosophy. They knew that the child doing a bad thing must be corrected then and there. Our disorder troubles will continue to increase to the point of ruin unless there is more discipline and sense of responsibility taught and maintained in the home.

The Necessity of Work

Every one of us respected the parent or teacher who made us mind, who maintained good discipline.

If there ever was a time when respect and order should be insisted upon that time is now. Let those who have the responsibility of guiding children and youth be sure they are right and fair in their rules and regulations, and then have the courage never to give in to nor compromise with wrong.

The third cause of trouble on the school and college campus is the failure to teach a child to work. One of the worst legislations ever passed are the child labor laws. To be sure, there should be some control to prevent little children from working in the sweat shops of the cities, but in general a reasonable amount of work never hurt anyone, child or man.

Work is the salvation of mankind. "The devil finds mischief for idle hands to do." One of the disastrous effects of the rapidly-decreasing number of farms and farmers is that it threw so many boys and girls out of the opportunity to work . . . to get a lifelasting sense of responsibility by taking care of farm animals and growing farm crops. Child labor laws are now so exacting that many would-be employers won't bother with the red tape involved.

But there is still work to be done in every family which should be shared by the boys and girls. A mother who says, "I would rather do the work myself than be bothered by Susie or Henry doing it," is doing Susie and Henry a great disservice. I know a family where every member, old and young, has his or her responsibilities. The young people do their share, get their school homework done, and still have time for recreation. Best of all, they have gained habits of responsibility. You won't find members of this family in sitdown strikes or in riots when they get to college.



Ed Eastman's Page

WHAT CAN YOU DO?

The churches, the farm organizations, the lunch clubs, the chambers of commerce, county and city leaders, all can do a much better job of disciplining their young people while they can be disciplined, and finding work for them to do. You won't find former members of 4-H clubs, Future Farmers, Boy or Girl Scouts, young people's church groups, and many other organized youth groups in trouble. They were trained in habits of responsibility while they still could be trained. The only trouble with the organizations doing some work for young people is that there has been not nearly enough of it. We all better get busy while there is still time!

Have at least one meal a day which every member of the family is expected to attend, and to discuss any subject or problem that interests him.

I shall be glad to have you write me short letters to guide my own thinking and writing if you do not expect answers to your letters. Better still, discuss this very serious problem in your family, your church, parent-teacher associations, farm organization meetings, women's clubs, with your representatives in the Legislature and Congress, luncheon clubs like Rotary, Kiwanis, and Exchange . . . in fact, **anywhere** you can arouse interest and action.

I call upon parents, teachers, and leaders of youth to redouble their efforts for the young people of tomorrow. Otherwise there will be no tomorrow.

IMPORTANT HISTORY

A lady wrote me with great enthusiasm about my book, "Journey to Day Before Yesterday" and then she said, "I think perhaps your book's greatest value is that it sets down in permanent form and preserves for posterity the experiences of thousands of us who grew up in the Horse and Buggy Days which you describe so well. Without your splendid record of how folks worked, played and lived, and those times when, for us, life was young and gay, all of that important history would be lost. It should be in every home and in every library."

To get a copy of this book write to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York 14850. The cost is $5.95, plus 12 cents tax in New York State.

EASTMAN'S CHESTNUT

I am twenty-five cents.
I am not on speaking terms with the butcher.
I am too small to buy a quart of ice cream.
I am not large enough to buy a box of candy.
I am too small to purchase a ticket to a movie.
I am hardly fit for a tip — But
When I go to church on Sunday,
I am considered Some Money!

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For The Northeast Farmer

by M. A. Parsons

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Mr. Daniel Hill, Dixmont 30.00
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CAN YOU HELP?

Mrs. William Roberts, Chelsea, Vt., would like the words to "Auctioneer's Song" and "The Great Speckled Bird;" also the tune to "Red Bay at Dartmouth."

* * *

Mrs. Maxson Henry, R.D. 2, Arkport, N.Y., would like a copy of the song book "The Wreath," for schools, academies, seminaries, etc.

* * *

Mr. Russell L. Seaver would like to know where he could purchase the book, "With the Children on Sundays," by Sylvanus Stall, D. D.

* * *

Marie B. McCutcheon, Town Historian, Ripley, New York, is interested in purchasing for reference work any of the Chautauqua County histories or related materials which have been published; also, "An Authentic History of the Second War for Independence" by Brown (in 2 volumes), 1815; and "History of the One Hundred and Twelfth Regiment" by Hyde, 1865.

* * *

Mrs. Lottie P. Barnes, R. D. 3, Morrisville, Vt. would like to hear from anyone who has any copies of "Cinderella," a magazine for needlecraft and homemaking.

* * *

Miss Charlotte Smart, Pownal, Maine, would like to know if anyone has any "Wild West Weekly" magazines or the songs from them. She would also like the poems, "Whistling Pines," and "The Soul of the Violin."

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

Mrs. Lawrence Davidson, R. 1, Groton, Vt. 05046, tells us they lost their home and contents in a fire. She would like to buy an old Latta's Teachers' book to replace one lost in the fire.

* * *

Mrs. Samuel Clements, 50 Pine St., Franklinville, N. Y., would like the first verse of a poem about Mr. Lincoln. The second verse begins, "Once riding with a lawyer friend down through a country lane."

* * *

If you have any Almanacs, old or new, write Mrs. Grace Daley, Star Route 1660, Stratford, N.Y., who is trying to fill in some numbers between 1887 and the present time.

* * *

ADDRESSES WANTED

Henery Heath, formerly of Hartford, Conn.

* * *

Bess and Steve Shopensey, whose last known address was Plandome, L.I., N.Y., around 1930.

* * *

Miss Eva Skerritt, who formerly lived in Oswego County, N.Y.

* * *

Lillian Forbes, formerly of Belfast, Ireland, whose last known address was San Diego, Cal.

* * *

Harry K. Bringeman or Henry Dubouis, born in 1894 in York, Penna.

* * *

Joseph Schfierirck, whose last known address was Ithaca, N.Y.

* * *

Miss Vu De Andrus, formerly of Lockwood, N.Y.

* * *

Averill Adner Shaw, R. 1, Harrisville, N. Y., would like to hear from anyone by the name of Adner.

* * *

Mrs. Dolly Wolfe's street address in Oakdale, New York.

* * *

Mark J. (Doc) Patterson whose address in 1946 was Easton, Maryland.

* * *

Any descendants of Ambrose Goewey, who lived in Poestenkill, N.Y.

EVERY 3 SECONDS

Someone is injured in an accident. 1967 accident facts show that the annual toll is 115,200 killed, 10,700,000 seriously injured. If you haven't had an accident — be thankful.

TRAVEL ACCIDENTS 53,000 KILLED

Motor vehicle accidents were the number one cause of deaths with 1,900,000 disabled beyond day of accident.

HOME ACCIDENTS 28,500 KILLED

Falls, a major killer, caused 40% of all accidental deaths in the home. Over 4,300,000 disabled beyond day of accident.

ONE OUT OF EVERY SEVEN

Will become a hospital patient either from illness or accident this year.

You may find a friend's name in the partial list of recent payments. They received help from their North American protection.

Delwin C. Marriott, Fillmore, N.Y. $1435.71
Fell—broke hip, shoulder
William Smith, Lisle, N.Y. 240.00
Thrown from wagon—inj. shoulder
William Lincoln, East Otto, N.Y. 2649.69
Fell—injured knee
Florence Hakes, Ellicottville, N.Y. 107.14
Kicked by cow—inj. leg
Mamie Lotter, West Valley, N.Y. 244.40
Auto acc.—inj. ribs
Richard Delaney, Union Springs, N.Y. 1680.00
Log fell—broke leg
Albert Jacobs, Aurora, N.Y. 1449.00
Fell 20 feet—broke leg
Robert Christopher, Locke, N.Y. 247.14
Kicked by cow—inj. elbow
Howard Vidal, North Clymer, N.Y. 1250.71
Auto accident—inj. leg, face
David Austin, Cassadaga, N.Y. 817.68
Caught in tapper—inj. arm, broke toe
Joicey Olson, Ashville, N.Y. 405.61
Fell—broke arm, wrist
Helene Reit, Smyrna, N.Y. 1212.79
Slipped fell—broke wrist
Gerald Gadway, Mooers Forks, N.Y. 372.84
Auto accident—inj. neck
Arthur Renadette, Sr., Plattsburg, N.Y. 678.53
Knocked down by cow—inj. leg
Edward H. Bulriss, Mooers, N.Y. 298.61
Slipped and fell—inj. ankle
John Stevens, Cortland, N.Y. 237.55
Fell—inj. shoulder, arm
Gerald C. Fisher, Homer, N.Y. 423.81
Auto acc.—severe bruises
Irving Wheat, Hamden, N.Y. 1318.56
Tractor accident—broke pelvis
George Gumas, Walton, N.Y. 456.39
Crushed by cow—cut finger
George Maurer, Franklin, N.Y. 140.00
Caught in V-belt—inj. hand
Joseph Arrigo, Brant, N.Y. 144.18
Caught in fan—inj. hand
Norma Kohn, Lawtons, N.Y. 1260.89
Tractor accident—multiple inj.
Monroe Framer, Lawtons, N.Y. 231.40
Kicked by cow—injured knee
Michael McCusker, Keeseville, N.Y. 1120.00
Fell from hay mow—inj. back
Hermas Racine, Constable, N.Y. 894.87
Kicked by cow—inj. hand
Fred O'Connor, Chateaugay, N.Y. 814.90
Gored by bull—broke sternum
Irving McQuilkin, Pavilion, N.Y. 1477.84
Auto accident—broke hip
Christine Richley, Corfu, N.Y. 960.56
Fell—injured wrist
Vance E. Helmer, Little Falls, N.Y. 125.00
Fell—broke wrist
Elsa Austin, Carthage, N.Y. 402.90
Fell—broke arm
Stephen Liktor, Copenhagen, N.Y. 1405.00
Fell—broke arm
Thomas Beller, Carthage, N.Y. 1185.64
Thrown off tractor—internal injuries
Lloyd Murdie, Chaumont, N.Y. 609.30
Fell—inj. leg

John W. Williams, Oneida, N.Y. $ 396.50
Kicked by horse—inj. chest, leg
Margaret Steg, Churchville, N.Y. 365.00
Went thru glass door—cuts chest, arm
Jean Raym, Fultonville, N.Y. 310.35
Kicked by cow—inj. hand
Charles Boncella, Durhamville, N.Y. 178.56
Slipped—broke shoulder
Elster Foote, Elbridge, N.Y. 172.96
Caught on chain—injured finger
Estella Currie, Tully, N.Y. 454.10
Slipped and fell—broke ankle
Marjorie Kennedy, Canandaigua, N.Y. .. 335.00
Auto accident—multiple cuts, bruises
William Hansen, Johnson, N.Y. 172.85
Bunted by cow—broke cheek bone
Mary Snook, Albion, N.Y. 648.59
Auto accident—inj. neck
Lester Welch, Fulton, N.Y. 420.00
Fell—broke leg
Wilbur Holloway, Worcester, N.Y. 150.55
Attacked by cow—inj. ear, arm
Freeman Bonesteel, Troy, N.Y. 1253.39
Fell from ladder—broke heel, arm
Blanche Jenner, Lisbon, N.Y. 225.00
Cow pushed stanchion—inj. shoulder
Eugene Taylor, Nicholville, N.Y. 130.70
Struck by car—inj. leg
Maude Smullen, Cobleskill, N.Y. 438.40
Auto accident—whiplash
Lyle Knapp, Odessa, N.Y. 1755.34
Auto accident—head injury
Carlton Warne, Romulus, N.Y. 1711.42
Caught in auger—broke leg
Ronald D. Harrington, Troupsburg, N.Y. 4152.74
Caught in chopper—loss of hand
Laura Chissom, Bath, N.Y. 317.59
Spilled acid—inj. leg
Kenneth Pipher, Tioga Center, N.Y. 943.84
Truck accident—inj. back
Helmuth Meyerman, Owego, N.Y. 1035.00
Struck by bale of hay—inj. eye
Arthur MacDaniel, Shady, N.Y. 302.85
Caught in gears—inj. hand
Edward C. Norton, Fort Ann, N.Y. 248.56
Kicked by cow—inj. leg
Oliver Brown, Palmyra, N.Y. 135.70
Slipped and fell—inj. knee
Bertha Doty, Wolcott, N.Y. 571.00
Auto accident—inj. back
Anthony Perry, North Java, N.Y. 130.08
Crushed by cow—inj. hip
Joseph Kelley, Granville Summit, Pa. 721.22
Tripped—inj. ankle
Alberta Young, Tioga, Pa. 503.11
Caught between cows—inj. neck
Doris Davitt, Erie, Pa. 379.65
Pedestrian accident—injured hand
Robert Malsbury, Cream Ridge, N.J. 178.56
Ran over by tractor—inj. leg
Ralph Mulder, Hackettstown, N.J. 883.58
Stepped on by cow—broke ankle
John F. Thorn, Deerfield, Mass. 1200.00
Hit by falling tree—multiple inj.
Victor Kimball, Meredith, N.H. 426.25
Slipped and fell—broke fingers
Arthur Streeter, Vernon, Vt. 108.71
Crank kicked—inj. shoulder

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American Agriculturist
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Enables the Dairyman to Keep a Record of Each Cow's Production and Health at Each Milking

Simple, Low-Cost, Small, Compact, Easy-to-Use, Cleaned-in-Place, Sanitary Device is New Addition to the ZERO CONCORD Twin-Vacuum Pipeline Milking System

Here's information about the recently-invented, revolutionary ZERO CONCORD *COW MONITOR — now an important addition to the complete ZERO CONCORD TWIN-VACUUM PIPELINE MILKING SYSTEM.* The COW MONITOR is a simple, low-cost, small, compact, easy-to-use, cleaned-in-place, sanitary device that *enables the dairyman to keep a record of each, individual cow's production and health at each milking.* Without interfering with normal milking procedure. Without detrimental effect to the milk. And without disturbing the system's low, stable vacuum.

The COW MONITOR is designed for both parlor and stanchion barn milking. To operate — you attach it to your milk conveying vacuum pipeline. Simple in design — the COW MONITOR is easy to use. It's small and compact. Sanitary. And is cleaned and sanitized in place.

Made Possible Because There's No Air Injection at Milker Units

The simplicity, compactness and low cost of the COW MONITOR are made possible by the ZERO CONCORD Milking System's *Twin-Vacuum* operation — a new, revolutionary milking principle developed by ZERO. *Twin-Vacuum eliminates the need for injecting air into the milker units to move the milk through the pipeline into the bulk tank, as is necessary with conventional milking systems.* With the ZERO CONCORD Milking System — the milk is *drawn by vacuum,* in a *solid column,* from the milker units to the milk conveying vacuum pipeline and on into the ZERO *vacuum* bulk tank. No expensive milk pump or releaser is necessary.

And the fact that the milk is in a *solid* column — *without air agitation and foaming* — is what has enabled the COW MONITOR to be so amazingly-accurate during tests made on many dairy farms.

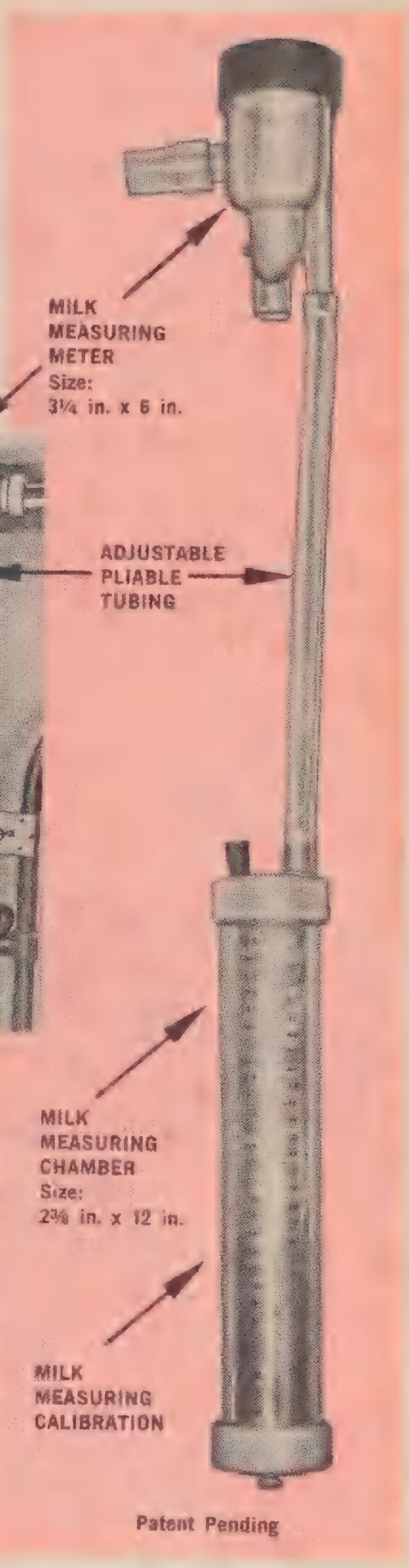
The COW MONITOR can be checked by the accuracy of your bulk tank. To check its accuracy — take a reading of the bulk tank's calibration stick before and after each milking. This gives you the total herd production. Then compare the individual cow's readings.

See Your ZERO Dealer!

Increasing costs make good management necessary. And for good management — you need equipment that enables you to check each cow's production and health at each milking. For the health of the cow at each milking must be known in order to get peak production. And peak production from each cow is the best possible check on the cow's health.

Mail the coupon today for the FREE Brochure which contains detailed information about the ZERO CONCORD TWIN-VACUUM PIPELINE MILKING SYSTEM *with the new, revolutionary COW MONITOR* — location of the ZERO CONCORD installation nearest your farm — and name of your nearest ZERO Dealer!

ZERO MANUFACTURING CO.
691-CH Duncan Ave. Washington, Mo. 63090



Patent Pending

Photos above show how COW MONITOR's Measuring Chamber can be adjusted for easy reading and accessibility in both parlor and stanchion barn.

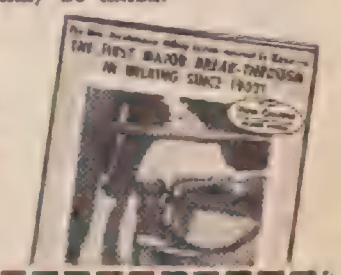
You can quickly tell amount of each cow's milk by reading the calibration marks on the Milk Measuring Chamber. The twice-a-day check on the cow's production gives you a twice-a-day check on the cow's health. After each reading — milk is drawn back into milk line. Or, a milk sample may be taken.



COW MONITOR is cleaned and sanitized in place, along with Milker Units, by ZERO CONCORD's built-in, automatic self-cleaning and sanitizing system.

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Explains how modern ZERO equipment can save you time, labor and increase profits. Gives detailed information about the new, revolutionary ZERO CONCORD Cow Monitor and ZERO CONCORD Twin-Vacuum Pipeline Milking System, including the ZERO Completely-Automated Vacuum Bulk Milk Cooler. Mail coupon for this FREE Brochure today!



THE NEW
Zero® Concord
TWIN-VACUUM PIPELINE MILKING SYSTEM
—WITH COW MONITOR



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ZERO MFG. CO. 691-CH Duncan Ave. Washington, Mo. 63090

Please send me the FREE Brochure, described above, with full information about the new, revolutionary ZERO CONCORD COW MONITOR and ZERO CONCORD TWIN-VACUUM COMPLETE PIPELINE MILKING SYSTEM. Also location of the ZERO CONCORD farm installation nearest my farm. And name of my ZERO Dealer. I am interested in:

- ☐ New ZERO CONCORD Cow Monitor
- ☐ New ZERO CONCORD Twin-Vacuum Complete Pipeline Milking System
- ☐ New ZERO Completely-Automated Vacuum Bulk Milk Cooler
- ☐ Good Used Equipment
 - ☐ I have a milking parlor ☐ Stanchion barn

NAME

DO YOU HAVE A BULK TANK? ITS AGE

WHAT MAKE BULK TANK DO YOU HAVE?

SIZE OF YOUR HERD

ADDRESS PHONE

TOWN STATE

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For The Northeast Farmer

Vol. 165, No. 8

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OUR COVER

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You'll never feel more comfortable on any tractor this size. The deck is clean and roomy, corrugated for safety. Big 3-pump hydraulic system, 540 or 1000 rpm power shift PTO—and torsion bar draft control hitches that respond instantly, even to small changes in load.

Check on all the worth-more features on a new 544 at your dealer. His convenient IHCC credit program can put one on your place now.

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EDITORIALS



by GORDON CONKLIN

THE BIGS & THE SMALLS

For at least 35 years, our national political leadership has been unable to separate the economic problems of commercial farmers and the social problems of small farmers. I say "social" because, on farms having gross annual incomes of less than $10,000, a very large change in the prices of farm products would be required to provide "adequate" incomes. **Doubling** the price of milk doesn't help the man with 10 cows very much . . . because he just doesn't have very many hundredweights of milk to sell!

The USDA, and economists at colleges of agriculture, have been doing some figuring on just how well . . . or badly . . . farmers are **really** doing financially. They conclude that most farmers in the gross annual income bracket of $20,000 and up have been doing very well . . . even when compared to other segments of the economy. Further, it appears that farmers in the $10,000 to $20,000 gross income group have been doing fairly well. But the economists sadly agree that the "under $10,000" category (including 2,200,000 families) is generally in a financial crunch . . . at least in terms of the "tide of rising expectations."

The billions that have been paid over the years to farmers from subsidy programs have been almost entirely oriented around supply management. Obviously, this money has gone to those controlling a large supply to be managed . . . the larger operators. Diversion-type farm programs, then, have perhaps kept the U.S. farm machine well lubricated and more fully capitalized than would otherwise have been the case . . . but they have almost entirely bypassed the small farmers.

Politicians, though, are experts at arithmetic and know they must at least appear to be concerned about the largest number of voters . . . and the "smalls" outnumber the "bigs." They're now considering all sorts of proposals that point to a real Donnybrook down in the economic valley dividing the two. Unfortunately, some of those proposals would work to weaken the bigs . . . and not help the smalls very much.

For instance, suppose the scheme were implemented that calls for 10,000 small farmers to produce . . . with government assistance . . . 320 feeder pigs a year. The extra 3.2 million head would add 4 percent to the present supply, and past experience points to a resulting 8 percent decline in hog prices. The 10,000 farmers would add $10 million to **their** gross incomes . . . and U.S. hog producers would get $300,000,000 less!

Subsidies to keep small farmers farming could do serious damage to commercial-sized farms. Some government activitists would like this, though, because if everyone is in trouble, then Uncle Sugar would be available to save everyone. Firemen can really get that "needed" feeling by tossing a few well-placed Molotov cocktails!

The small farmer is in a "box." Commercial farmers aren't exactly overwhelmed with joy to see him become a more efficient competitor with the help of low-cost government loans . . . or able to ignore production costs with outrights grants. On the other hand, labor unions don't welcome him into competition for jobs in the cities, either.

It's my opinion that the long run best interests of many smaller farmers will best be served by programs that ease his transition from farming to off-farm employment ...such things as job retraining, industrial expansion, long-term land retirement. A few will choose to move toward building a commercial-sized farm, for which credit with realistic repayment terms should be available.

But I resist infusing massive amounts of production capital into noncommercial agriculture . . . just cheering the patient, but not curing him . . . and at the same time making competitive commercial agriculture sick.

How about you?

BIDDING IT UP

Since 1940, the average dollar value of farm land in the United States has gone up by five times! During the year ending November, 1967, land values rose six percent.

There are two major reasons for the continuing steep climb in land values . . . the reach by farmers for **size**, and the reach by nonfarmers for **room.**

Every farmer knows that expansion of his farm business offers the opportunity to move faster, either up or down the financial ladder. The name of the game is to produce many units at a relatively low margin per unit . . . and more acres is one way to produce more units of most farm products.

Nonfarmers, crunched into the concrete wastelands of the cities, long for some elbow room. Every human being has a **territorial imperative,** so we're told . . . the desire to have a little piece of this planet he can call wholly his own. As the flames and violence of urban riots light the sky and redden the streets, the urbanite longs even more than before for the quiet countryside . . . and resolves to move out of where the action is.

These two forces will remain strong for the foreseeable future, and will push even higher the sale price of farm land.

MATTER OF CHOICE

As a school board member, I find the most baffling task is to select the best from the merely desirable . . . sorting out the top priority items from a host of good ones. No less than our nation, a school system stands in constant danger of proliferating its responsibilities to the point of mediocrity on all fronts.

In my school district, the school system bears an inequitable portion of the burden of a recently-installed village sewer system. There is constant pressure to provide a municipal swimming pool via the painless route of state aid to the school . . . and endless requests are made for the educational organization to take over more of the personal and public problems of the citizenry . . . all under the sacrosanct umbrella labelled "education." I cringe at times over some of the things asked for as "education" . . . programs which are merely publicly-financed conveniences that in reality dilute the educational process.

Sorting out and living by priorities is no easy task . . . particularly since every proposal has its share of enthusiastic proponents who have no opportunity to see the school system as a total picture. The school board juggles many plates in the air, and each plate has its own group of adherents who believe theirs to be the most important one of all.

Don't ask your school system to be all things to all people . . . or it will be as diluted as a spoonful of bourbon in a gallon of water, with neither taste nor kick!

I'M A BELIEVER

Late in June, I traveled over a good-sized chunk of the Northeast. The fact that not much haying had been done was disturbing . . . but the "tobacco hay" soaking and browning on the ground was appalling. I could just see the dollars falling out of farmers' pockets as hay crops each day became more mature, got chewed by the weevil, flattened by wind and rain, and soaked after being cut.

A wet June is bound to convert more believers to the conviction that making first-cutting hay in the Northeast is for the birds . . . the odds against getting good quality year in and year out are just too long.

Taking that first cut as low-moisture haycrop silage looks to me like the best bet . . . although even this was tough to do in many areas during last June's monsoon. Removing moisture from any forage crop can be frustrating and expensive . . . I think that using the crop with some of the moisture still in it offers the best long-run possibilities. The advantages over hay-making are numerous: earlier cutting, beating the alfalfa weevil, better materials handling, enhanced second (and perhaps third) cutting, and ability to keep moving even when weather is catchy.

By the way, this next winter will be the second in a row that northeastern dairymen will have lots of hay . . . of lousy quality . . . in their mows. Production per cow under such conditions has historically been below that following dry years when both hay quality and grain feeding were at high levels.

When it comes to harvesting first cutting hay crops as haylage, I'm a believer!

American Agriculturist, August, 1968

FUNERAL

While I was waiting for the neighbor folk,
I went down through the orchard, where in rows
There stood the last few dying apple trees,
The Willow-Twigs, the Wealthys and the Snows.

And I remembered how he used to say,
When he spaded up the hillside loam,
"This land is rough and just a trifle thin,
But with some maples it will look like home."

I saw his woodpile and his chopping block
(He always split his stovewood straight and neat).
I walked back where his Blue Grass pasture spread
And stopped to see his field of winter wheat.

His barn was empty; they had turned his team
Out in the cornstalks, and the harness hung
Right there upon the pegs, and near the shed
There lay a neck yoke by his wagon tongue.

I went inside the house — the preacher talked;
He did his best, but these young chaps don't know
Just what to say about the man who came
To plant the groves and fruit trees years ago.

Jay G. Sigmund
in "The Best Poems of 1926"
Dodd, Mead

SEE US AT EMPIRE FARM DAYS, AUGUST 6-7-8, LINCOLN KNOLLS, CANASTOTA, N.Y.



For tractor power geared to your requirements, go Allis-Chalmers!

For high-performance tractors in the most-wanted power ranges, you can't do better than to choose any one of the four Allis-Chalmers models pictured above. From front to rear, there's the 54 hp 3-4 plow One-Seventy . . . the 64 hp full 4-bottom One-Eighty . . . the 77 hp 5-bottom One-Ninety . . . and the turbocharged 93 hp 5-6 bottom One-Ninety XT. Of course you can go smaller or even larger within the Allis-Chalmers tractor line, but these four bracket the most popular sizes.

All four offer the convenience of quick and easy tread width changing, with power-shift rear wheels and simple roll-shift front axle. All feature famous Allis-Chalmers *automatic* TRACTION BOOSTER which instantly, *automatically* transfers weight to the drive wheels when needed to pull you through tough spots—for both 3-point hitch and pull-type implements. These tractors, and other equipment by Allis-Chalmers, will be on view at Empire Farm Days. We hope you'll drop in and look us over.

ALLIS-CHALMERS

TRACTION BOOSTER is an Allis-Chalmers trademark.

ALLIS-CHALMERS • THE SYSTEMS PEOPLE • MILWAUKEE, WISCONSIN

Personal Farm Experience



Reno Ferrando

APPLES AND PEACHES

We produce apples and peaches, with 1100 apple trees and 2000 peach trees.

We have 40 additional acres that can be cleared and planted, but the job is expensive. For one thing, I made the mistake of dumping some rocks on this area from other land we cleared.

About 25 percent of the crop is sold here at the farm. Four years ago we built a cold storage that holds 7500 boxes.

Sales of cider are important. We start making it about October 1, and continue until April.

To lengthen the season and please customers we grow 19 varieties of apples and 12 of peaches.

My nephew, who is 21, helps me full time, and I hire local help for harvest, mostly teenagers, who have done a good job.

We set some trees every two years to replace those that aren't doing well. We plan to have a third of the trees young, a third in full bearing, and a third that are old. — *Reno Ferrando, Glastonbury, Conn.*

HENS AND VEGETABLES

Our main sources of income are hens and vegetables.

We keep 2800 layers on the floor, and sell about 50 percent of the eggs on retail egg routes. We are able to keep the price relatively stable the year 'round, which helps. I doubt that we would produce eggs if we had to depend on the wholesale market.

We raised our pullets for many years, but raccoons killed so many that we now buy them.

We grow four acres of cabbage and cauliflower, 6 acres of tomatoes, and an acre of melons, which we sell to a commission man on the Menands Market. Also, we grow 40 acres of corn as a cash crop, and sell some hay.

My son Glenn works with me. He is the 6th generation on this farm. The house is at least 130 years old.

I drive a school bus and take care of the eggs, and in the winter Glenn drives a truck and delivers heating oil to consumers.

There have been big changes in marketing. Once we sold to housewives on the market, but it was too time-consuming, and few growers do it now. Many sell at the roadside, but we don't.

Quality has improved, partly because of new varieties. If your produce doesn't have quality you just don't sell it.

We have enough hen manure to cover 10 acres each year. We use lots of fertilizer. Corn ground gets 500 lbs. per acre of 15-8-12, and we get up to 150 bushels of shelled corn per acre. — *Clifford Lasher, Selkirk, N.Y.*

LIKES HIS WORK

This is a family farm. We have 34 milkers and 30 head of young stock.

We have 4 boys ranging from 10 to 17. They are in school, but each one has chores to do. Tony (17) helps with the milking; Russell (15) feeds silage; Edwin (13) cleans the mangers and feeds the calves; and Frank (10) helps his mother. We welcome suggestions from the boys, but parents give the orders.

When we first came to this farm in 1949 we built henhouses and kept 11,000 pullets for meat market. We got out of the pullet meat market business in 1961.

We built a comfort stall barn because we wanted the cows to be comfortable.

We grow 35 to 40 acres of corn. On one field we have grown corn every year for 15 years. To do this we feel it necessary to fertilize heavily, keep the pH sufficiently high, and maintain the humus content of the soil. Every fall we sow rye as a cover crop.

We do a good job of plowing. If that is done poorly you have to spend extra time in harrowing. We use a chemical weed killer, and cultivate the corn once.

The cows get quite a bit of feed from pasture, which is fertilized.

To do any kind of a job well I feel it is important to like your work. — *Tony Kasacek, Lebanon, Conn.*

VEGETABLES ROADSIDE

My brother, Alfore, and I grow vegetables on 40 acres. Our dad grew vegetables here, including potatoes and some field tobacco.

Now potatoes and tobacco are out and we grow a considerable variety, most of which we sell at our roadside. Most of our customers are "repeats," and to get them to come back you have to grow quality stuff. For example, take sweet corn. Varieties have improved, and we pick it when it is right. It is one of our top crops . . . about 25 acres.

We watch the market in pricing on the stand, but often are able to get a premium. When we have more vegetables than we can sell at the stand, we take them to the Springfield market.

A year ago, we began growing tomatoes in the greenhouse. We begin picking the last week in May and continue until July. It's a tricky crop to grow.

To maintain the humus in the soil, we grow rye as a cover crop. It takes a lot of commercial fertilizer to grow a crop, the amount depending on the crop and the soil. We have some sandy soil for early crops and some heavier land for those that come later. — *Edward Wolodko, North Maple St., Hazardville, Conn.*

GROWING MORE CORN

We milk 80 purebred Holsteins, housed in stanchions. If we had to build I would seriously consider free choice stalls, but we have a good barn. The farm is owned by my father-in-law, George Hiscock.



Malcolm Knapp

We raise from 20 to 25 heifers a year, mostly for replacements. We feed the calves milk for the first two months. From three weeks on they have hay and grain before them.

We like heifers to have good size when they freshen, so we don't plan to breed them too young. The heifers that are 2 years old now will mostly freshen in July. We get them in from the pasture about two weeks before they freshen, and give them 4 quarts of grain, increasing it to 10 or 11 quarts after they freshen.

Our top feeding level is 22 lbs. of a 16-percent ration per cow per day.

Along with most dairymen we are growing more corn. The rotation is 2 years corn, one year oats seeded to alfalfa, alsike, and timothy. The alsike gives good feed the first year before the alfalfa gets established.

Our milk produced per man is around 350,000 lbs. — *Malcolm Knapp, Lafayette, N.Y.*

DIRECT SEEDING

In 1967, Ralph Winsor of Harpursville (Broome County), New York, said "out" to oats and did his hay-crop seeding without a nurse crop. One field had this sequence of events: corn for three years, with required lime applied the year of the last corn crop . . . then the plow and trailing clodbuster . . . fertilizer according to soil test . . . some harrowing . . . then 12 pounds of Saranac alfalfa and 4 pounds of bromegrass sowed through a drill equipped with hoses that banded the seed from the seeder box . . . and finally a cultipacking. Premerge was used as an herbicide after weed canopy developed.

In 1967's wet season, crops grew well . . . and Ralph cut his new seeding twice in the year it was seeded! After the first cut, he topdressed with 40 pounds of phosphorous and 60 pounds of potash per acre. Then in April of '68 he applied on this field 30 pounds of phosphorous and 80 pounds of potash per acre.

The crop from 50 acres of hay land goes into the silo for haylage to keep the 116-cow Winsor herd chewing happily all summer. Then the silos (24×60 and 14×55) are both filled with corn silage in the fall. Corn varieties on the 90 acres grown last year included NE 144, Pa. 290, and Cornell M-3.

There were 100 acres of land harvested for hay last year, but Ralph feeds only 5 to 6 pounds of hay per cow per day . . . and around 70 pounds of silage per cow. He comments, "We don't like putting up hay very well anyway because of labor requirements and weather problems."

Cows are milked in a double-3 herringbone parlor, where one man can handle 40 cows per hour. First-calf heifers are housed in the old conventional barn, older cows in a free-stall addition built in 1964. Ralph believes the young cows do better if kept separately . . . because they're often at the bottom of the herd's "pecking order."

In response to price incentive, Ralph has most cows freshen in July, August, and September . . . with May and June being his months of lowest production. DHIC herd average is 15,000 pounds of milk per cow, 527 of butterfat. — *GLC*

APPLE BUSINESS

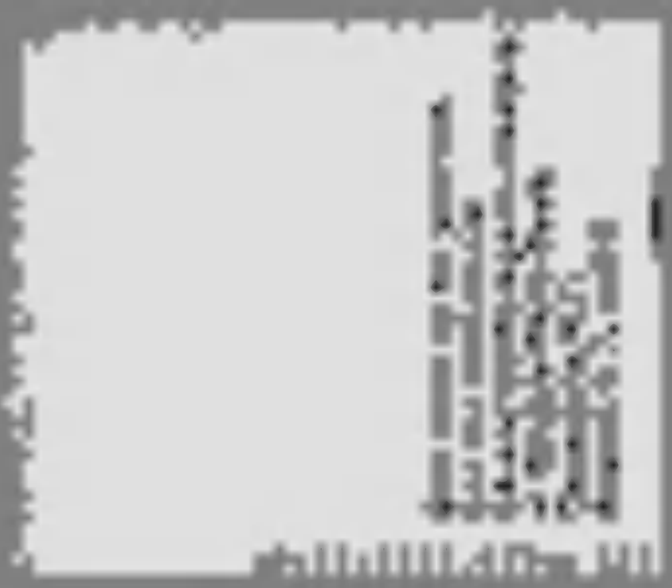
We have 50 acres of apples, all fruit being sold at our storage plant. Most customers live within a radius of 25 miles, but occasionally we sell to a wholesaler who comes here for the apples. We have had as many as 200 cars here in one day!

We operate a cold storage, but do not have a controlled atmosphere storage. We sell apples every day from harvest until early April. We manage to keep them in good condition. We store them in good condition, control the humidity, and keep the temperature at 35 degrees.

Sweet cider is a profitable part of our business. Eight years ago we bought a stainless steel bulk milk tank to keep the cider cool. We make cider from September to January, and can keep it fresh in the cooler for at least two weeks; we do not add a preservative.

My grandfather came to this farm from Canada in Civil War times. My father set some apple trees, and I began to add to them in 1918. I set a few almost every year, not to expand but to replace poor trees. Our chief varieties are Northern Spys and McIntosh.

We usually add 2 to 3 lbs. of nitrogen per mature tree in sod per year, but this year I am omitting the fertilizer. It seemed that the color of the apples was not quite up to standard last fall. — *Walter Moore, Cazenovia, N.Y.*





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VEGETABLES

Antibiotics for Plant Disease — The well-known antibiotic drugs such as chlortetracycline, tetracycline, and chloramphenicol have been found to be effective in combating aster yellows, a serious disease of many plants, including tomatoes, potatoes, carrots, celery, and onions. Aster yellows causes severe stunting, yellowing, and flower sterility, and eventually destroys the plant. The tests were conducted by scientists at the ARS Pioneering Laboratory for Plant Virology.

Root Rot — Wisconsin's pea crop, always threatened by common root rot, may be helped in the future by a fungicide now being tested. Dexon has controlled the disease in tests . . . increasing yields by as much as four times over that in untreated check plots. For more information, contact Professor D.J. Hagedorn, University of Wisconsin, Madison, Wisconsin 53706.

Systemic Fungicide — Looking ahead to 1969 or '70, there's a good possibility that there will be commercially available a systemic fungicide . . . one that the plant takes up into its tissues so that the chemical is there and defending whenever plant diseases strike. DuPont's material, carrying the experimental number "1991", has done in trials a very good job of preventing white mold in snap beans, and has also been effective against powdery mildew in all types of plants.

Other companies are also working on materials that show promise of a "systemic breakthrough" in control of plant diseases. A number of systemic **insecticides** are already available.

Spud Reminder — Free pictures of "The Potato Prayer" suitable for framing are available by writing Mrs. Hilda Trackwell, Lockwood Division, P. O. Box 160, Gering, Nebraska 69341.

"The Potato Prayer" was written by John Tyler Pettee. The words are:

"Pray for peace and grace
and spiritual food,
For Wisdom and guidance.
for all these are good,
But don't forget the potatoes."

It is printed against a silhouette place setting on heavy 10×14-inch paper.

Asparagus — Leaflet 400, published by the College of Agriculture and Environmental Sciences at Rutgers University, contains a wealth of information about growing asparagus. Available free to residents of New Jersey from county agents, or from the College. Out-of-staters can check its availability by writing Bulletin Clerk, College of Agriculture, Rutgers University, New Brunswick, New Jersey.

Systemic — Thimet 10-G soil and systemic insecticide may now be used to control all species of wireworms attacking potatoes, according to American Cyanamid Company. Thimet is applied at the same time as fertilizer. Applications are made in the furrow, or banded on each side of the row at planting time. The granules also provide long-lasting control of aphids, leaf-hoppers, leaf miners, psyllids and flea beetles on potatoes.

Absorbed by the roots, Thimet moves throughout the entire plant in the sap stream. Here it continues to afford systemic insect control for weeks . . . but no residues remain in table stock, chipping or processing potatoes.

NEW GREENHOUSE

Noordland Greenhouses (Kurt Weiss, Inc.) at Moriches, Long Island, New York, is the site of a new glass greenhouse measuring 210×210 feet. Imported from Holland, the structure has eaves eight feet high, and glass going nearly to the ground.

Glass panes are 23.5×68 inches. Ventilation is accomplished by roof vents and exhaust fans. It's the first of its kind to be built in the United States.

ENGINEER HEADQUARTERS

The American Society of Agricultural Engineers has undertaken a drive to raise $200,000 for a headquarters building fund. A site has been selected in St. Joseph, Michigan, and ground will be broken for the new building by August of this year.

Engineering has played a major role in the technological revolution that has brought fantastic efficiency to U.S. agriculture, as measured by output per man. ASAE leaders see this role as expanding . . . and also predict greater involvement of agricultural engineers in helping developing countries of the world to increase their agricultural output.

For details on the fund drive, write to the Society at 420 Main St., St. Joseph, Michigan 49085.

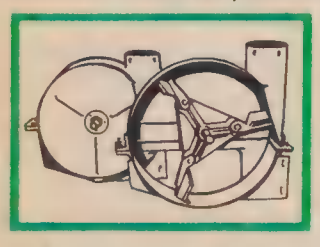


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—most powerful silo unloader ever built!

Power is the word for the XP/24—Badger's new silo unloader.
—Power to pour down more silage faster than any silo unloader ever before.
—Power to shoot silage, unassisted, out the door of even a 26-foot silo.
—Power to chew out rock solid, frozen silage and the toughest, gummiest haylage.
—Power to blast the slugs on through without plugging.

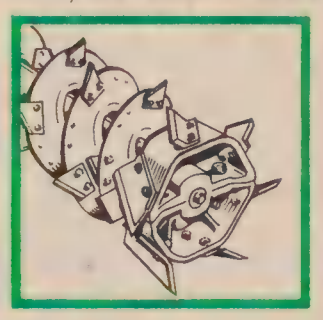
THERE ARE POWERFUL REASONS FOR BUYING THE XP/24...

The Blower—It's the biggest ever built into an unloader. The XP/24 blower has 77-percent more inside volume, is 24 inches in diameter and has three swinging cupped "throwers" instead of fixed or flat paddles. Everything is bigger, heavier, stronger. Housing is welded—not bolted—of rust resistant COR-TEN steel.



Unloading Efficiency—The XP/24 unloads 26 foot silos with one solid, uninterrupted stream of silage. It's first to do it without an added booster or conveyor. And it does it all with a single, normal sized motor.

The Auger—Its a digging, chewing demon. The XP/24 has a churning 9 inch auger of 7 gauge steel. Its digger wheel, with hardened steel knives, shaves to the wall. Converts everything to fluffy, palatable feed.



Save yourself. Save money. See your Badger Dealer. He's the world's largest seller of silo unloaders.

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Address_____
Phone_____

Dates to Remember

Aug. 4 - "Gas-Up" Central New York Chapter Pioneer Gas Engine Association, Deansboro, Musical Museum, Route 12B, Deansboro, N.Y.

Aug. 6 - Black and White Show, Burlington, Vermont

Aug. 6-8 - Empire Farm Days, Lincoln Knolls, Canastota, N.Y.

Aug. 7 - Lamb Pool, Watkins Glen, N.Y.

Aug. 9-10 - Vermont Maplerama, Windham County, Vermont, starting at Harlow's Sugarhouse in Putney.

Aug. 9-10 - Addison County Open Dairy Show, Middlebury, Vermont.

Aug. 13-14 - Mechanical Fruit Harvesting Demonstration, Lewiston, N.Y., sponsored by New York State Horticultural Society and the Extension Service.

Aug. 14 - Farm and Home Field Day, Georgetown Substation, Delaware.

Aug. 14 - Annual Science at Work Day, The Connecticut Agricultural Station, Lockwood Farm, Mount Carmel, Conn.

Aug. 15-17 - Fifth Annual Conventional National Christmas Tree Growers Association, Indiana University of Pennsylvania, Indiana, Pa.

Aug. 15-18 - New York Steam Engine Association Pageant of Steam. Working demonstrations of antique steam and gas engines and models, Roseland Park, Canandaigua, N.Y.

Aug. 18-21 - American Society for Horticultural Science annual meeting, Univ. of Cal., Davis.

Aug. 22 - Forage-Machinery Dairy Field Day, Rutgers Dairy Research Center, Sussex, N.J.

Aug. 22-25 - National Poultry and Egg Marketing Conference, Sherman House, Chicago, Ill.

Aug. 27-29 - National Plowing Contest and Pennsylvania Plowing Contest, Milton Hershey Farm, Hershey, Pa.

Aug. 27-Sept. 2 - New York State Fair, Syracuse, N.Y.

Aug. 28 - Wool Pool, Watkins Glen, N.Y.

Sept. 8-12 - International Poultry Industry Exposition, Chicago, Ill.

Sept. 11 - Wool Pool, 2 miles west of Watkins Glen, N.Y.

Sept. 13-22 - Eastern States Exposition, West Springfield, Mass.

Sept. 14 - New York Hereford Association Field Day, Scott Traxler Farm, Dansville, N.Y.

Sept. 19 - Conference for Feed Manufacturers, Distributors, and Feeders and 26th annual meeting of the Vermont Feed Dealers and Manufacturers Association, University of Vermont, Burlington, Vt.

PREVENTS BEE DISEASE

Inexpensive, easy-to-apply heat treatments may stem Nosema disease and wax moth attacks on honey bee colonies. USDA entomologist G.E. Cantwell killed the disease organisms and moths by holding hive equipment and combs at 120 degrees Fahrenheit in a sterilizer similar to an oven.

The scientist discovered that Nosema organisms could be killed at temperatures significantly lower than those previously known to be effective. Research earlier in the century indicated that temperatures of 130 to 140 degrees Fahrenheit would be necessary . . . a condition that ruled out heat treatments because combs sag or melt at those temperatures. The 120 degree Fahrenheit temperature used by Cantwell did not adversely affect combs or hive equipment.

Treatments killed Nosema organisms within 24 hours and killed all life stages of the greater wax moth in only 40 minutes.

Limited

Beekeepers are presently limited in the number of available Nosema control measures. When the risk of honey contamination became apparent, beekeepers stopped using the chemicals that controlled Nosema and wax moths. At present they mostly rely on adding antibiotics to a sugar sirup fed to bees when they are confined to their hives in cold weather. However, the antibiotic must be withdrawn in warm weather when bees begin producing honey.

The experimental heat treatment has no time limitations for use, and involves no residue or odor problems. Although cost figures were not obtained, the scientists estimate that heat treatments would not exceed the cost of other control methods.

This summer, further tests will be run with about 100 bee colonies. Canadian beekeepers will also participate, providing additional results under various field conditions.

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MARK-AIRE

Since introduction, has outsold all other competitive air harvesters combined . . . More proof of its reliability and performance



NUMBER ONE AND GROWER-PROVEN in
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. . . and wherever stones are a problem.

EXCLUSIVE INDUSTRY WARRANTY on Mark-Aire and all other Lockwood harvesters covers all drive shafts and drive shaft bearings for two years or 1,000 acres, whichever occurs first. Another Lockwood first!

HIGH-CAPACITY with two-row open throat digging gives you the high operating speeds you need for the big acreages.

THOROUGH SEPARATION that's almost perfect, even in fields where stones outnumber potatoes 3 to 1.

ADVANCED DESIGN gives you short-turning radius for tight headlands, "tractionized" low-profile design for hillsides and contours. Stones are windrowed away from rows yet to be dug.

RUGGED CONSTRUCTION throughout for famous Lockwood reliability that gives you years of dependable service. Now with heavier frame, new IHC 392 cu. in. V-8 industrial engine.

TENDER LOCKWOOD CARE uses vacuum separation to lift potatoes gently out of the stones plus double-hinged delivery boom, and rubber-covered chain (including new cushion chain on rear cross and clod conveyors) that babies your No. Ones and keeps them No. Ones.

EASY OPERATION with "feather-touch" hydraulic controls at the tractor driver's seat; perfect driver visibility to bulk box, digger aprons and "safety-shielded" personnel platforms.

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STARRING RECREATION

new york **state fair**

TUES AUG 27 THRU LABOR DAY

DAY & NIGHT SYRACUSE

have a circus (and 1000 other things)



highlights

1. Musical Museum
2. Children's Center
3. Horticulture Center
4. Grandstand
5. Art and Home Center
6. Art & Sculpture Show
7. All-Foods Center
8. Midway and Funland
9. Center of Living
10. "Recreation" Shows
11. Free Entertainment Center
12. Dairy Center
13. "Hall of Health"
14. Poultry
15. Witter Agricultural Museum
16. Swine
17. Sheep
18. Farm Machinery and Home Equipment Show
19. Beef Cattle
20. Junior Dairy Barn
21. Junior Pavilions
22. Wildlife Exhibits
23. Dairy Cattle
24. Coliseum & Horse Show
25. Horse Department
26. Youth Center
27. Microd Track
28. State Exhibits Center
29. Indian Village
30. Recreation and Conservation Shows

free at entertainment center:

The Cowsills ★ Young Americans ★ Lennon Sisters
Happy Louie and Polka Dancing ★ Four Saints
Contest of the Combos ★ NYS Amateur Finals
Carl Silfer and His State Fair Pops Orchestra
Hank Snow ★ Porter Wagoner ★ Lonzo & Oscar ★ Country Music Festival
Vaudeville Varieties of '68 featuring "The Kittens"

free at the grandstand:

High School Bands Championship
The Great Hubert Castle International Circus
NYS Harness Horse Meet ★ Historic Auto Show and Parade
Sports Car Autocross ★ Horse Pulling Championship

also at the grandstand

NYS Stock Car Championship Races

free at the coliseum:

Judging—World's Largest Cattle Show
Square Dance Contest & Festival
International Horse Show

NEW YORK STATE FAIR

(All buildings and exhibits are open until 10 p.m.)

Schedule of Events August 27-September 2

Tuesday, August 27

A.M.
8:00 Judging of rabbits and cavies
4-H Dairy Cattle Judging Finals
Judging Pigeons
Forage and Grain
Market Barrows
Wether Show
State 4-H H.E. demonstrations
Judging Homemaking exhibits.

9:00 Horse Show
Pinto Halter
Shetland Pony Halter.
Judging Guernsey, Brown Swiss,
Milking Shorthorn classes
Quality Lamb Contest-wethers on hoof.
N.Y.S. high schools' bands competition – until 5 p.m.

9:30 Judging poultry
"Sheep on Foot" Carcass Show.

10:00 Judging insect and disease collections
Farm Products
Christmas Trees
Farm and Fruit exhibits.

10:30 Entertainment – The Cowsills, The Kittens . . . and at 2:30 and 6:30 p.m.

10:45 Food Demonstration (also at noon, 1:45, 3:30, 5:30, 7:00 p.m. each day.

11:00 Auburn Children's Theatre Plays . . . at 12 noon, 2:00, 3:30 each day.
Free health tests each day.

11:30 Flower Judging (each day)

12 noon Judging Creative Cooking Contest each day.

P.M.
12:30 Entertainment – Four Saints; Happie Louie and His Polka Band; also at 4:30 p.m. and 8:30 p.m. each day.

1:00 On-foot carcass barrows
4-H Standard Breeders Poultry
Quality Pork Contest, barrows on hoof
Jr. Jersey and Ayrshire classes
Poultry Science Production Judging
Horse Show – Palomino Halter

1:30 Spelling Bee

3:00 Judging 4-H Swine Showmanship

6:00 Horse Shows
Western Pleasure
Single Harness
Horsemanship Champion
Palomino
Appaloosa
Roadster Pony
Stock Horse
Pinto Stock Horse
Pinto Champion
Roadster
Quarter Horse Reining
Quarter Horse Champion

7:00 State Fair Talent Hunt (Grange) each day
Silent Movie and Organ Recital each day
Judging 4-H Steers
Sheep shearing contest

8:00 Recreation exhibitions and demonstrations
FFA demonstrations in vocational agriculture.

Wednesday, August 28

A.M.
8:00 Judging rabbits and cavies
Pigeons
Beef Cattle and Showmanship Finals
Guernsey
Brown Swiss
Milking Shorthorns
Berkshire classes

9:00 Judging homemaking exhibits
Hampshire and Cheviot Sheep
Holsteins
4-H demonstrations

10:00 Judging Hereford Breeding Cattle and Steers
Dairy Goats
FFA demonstrations

10:30 Entertainment – Young Americans and at 2:30 and 6:30 . . . and on Thursday
Judging Poland China Swine

P.M.
12:30 Women's Day Luncheon

1:00 Judging Quality Lamb Contest, carcasses
Tractor Operators Contest
Oxford, Southdown Sheep

2:00 Judging Yorkshire swine

2:30 Free Harness Racing (and Thursday)

3:00 Judging Columbia, Tunis, Montadale Sheep

7:00 Judging Dairy Cattle Showmanship Finals

7:30 Square Dance Festival
Judging Tunis and Montadale Sheep

Thursday, August 29

A.M.
6:00 Judging quality pork, carcasses

8:00 Judging Hampshire Swine
Ayrshires and Jerseys

8:30 4-H Poultry Science Contest

9:00 4-H Vegetable Crops Contest
4-H Tractor Operators Contest
State 4-H Home Economics Demonstrations
Corriedale and Suffolk Sheep
Dog Obedience, beginners

10:00 Judging Angus Cattle
FFA demonstrations

P.M.
1:00 Dog Obedience Classes
Quality Beef Contest, Carcasses
Rambouillet and Shropshire Sheep
Duroc Swine
New York Purebred Dairy Cattle
Association calf presentation

1:30 Judging Holstein Cattle

3:00 "Make It Yourself With Wool" Fashion Show (and at 4 p.m.)

5:15 Horse Show:
Junior Working Hunter Open A and B
Amateur-Owner Working Hunter Appointment
Green Working Hunter Open,
1st year and 2nd year
Amateur Owner Working under Saddle
Open Junior Jumper, Green Jumper

6:00 Judging Charolais Classes (first show of this breed at the Fair)

Friday, August 30

A.M.
8:00 Judging Flowers and Vegetables
Holstein Dairy Cattle
FFA Dairy Showmanship
Horse Show:
Half Arabian Halter
Arabian Halter
Percheron Halter
Belgian Halter
Grade Halter

9:00 Judging FFA Small Gas Engine Trouble-Shooting Contest
FFA Livestock Judging Contest
FFA Milk Judging Contest
FFA Field and Forage Crops
FFA Vegetable Crops
FFA Poultry and Egg Judging
FFA Dairy Cattle Judging

10:00 Shorthorn Judging

10:30 Entertainment – The Lennon Sisters . . . also at 2:30, 6:30 through Saturday

P.M.
2:00 Auction of Champion carcasses

3:30 FFA Judging Results Announced.

4:00 Judging Grand Champion Steers
Free Microd Races . . . also at 6:00 p.m. and on Saturday

5:00 Horse Show:
Modern Arabian
Green Hunter Open – 1st year
Green Hunter Open – 2nd year
Working Hunter Open
Performance Morgan – Ladies
Ladies to Ride Five Gaited Arabian Stallion
Junior Hunter Open "A"
Junior Hunter Open "B"
Amateur-Owner Hunter Open
Ladies Three Gaited
Green Jumper

5:30 4-H Fashion Show

(Continued on page 18)

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Schedule of Events

(Continued from page 16)

6:00 Judging English Classes

Saturday, August 31

8:00 Horse Show:
Green Hunter Open - 1st year
Green Hunter Open - 2nd year
Working Hunter - Ladies
Horsemanship on Flat - over 14
Horsemanship on Flat - 14 and under
Pleasure Morgan - Driving
Amateur - Owner Jumper

8:45 Judging 4-H Horse Show
Pony Classes Begin
Performance Classes Begin

10:00 Competition for the H.S. Duncan Memorial Award; exhibits featuring marketing of fruits and/or vegetables.

P.M.

1:00 Horse Show:
Junior Three Gaited
Arabian Horse - Junior
Novice Morgan
Half Arab English Pleasure
Junior Jumper Open
Junior Under Saddle "A"
Junior Under Saddle "B"
Green Working Hunter under Saddle - 1st year
Arabian Western Pleasure

7:00 Senior Citizens Square and Round Dance - until 9:30

Horse Show:
Amateur - Owner Open
Pleasure Morgan - Western
Five Gaited Stallion and Gelding
Arabian Mare and Gelding
Junior Jumper Fault and Out
Green Jumper - Time First Jump Off
Morgan 15 hands and over
Three gaited over 15.2
Half Arab Costume Class

Sunday, September 1

A.M.

8:15 Horse Show:
Working Hunter - Amateur
Three Gaited under 15.2
Morgan under 15
Arabian English Pleasure - Amateur
Five Gaited Mare
Half Arabian - Western Pleasure
Green Jumper - Bonus Point

10:30 Free Historic Automobile Exhibition

11:00 Upstate Accordion Association Program . . . and at 4 p.m.

P.M.

12:30 Horse Show:
Amateur-Owner Hunter Stake
Amateur-Owner Champion, Junior
Working Hunter Appointments "A" and "B"
Working Hunter Open
Arabian English Pleasure
Morgan Junior
Green Jumper-Bonus Point

2:00 McCall's Pattern Fashion Show . . . and at 4 p.m.

3:00 Interfaith Religious Service
Parade of Historic Automobiles
4-H Horse Show Judging Contests - announcement of finalists

5:00 4-H Horse Judging Contest Begins

6:30 Horse Show:
Pleasure Morgan English
Working Hunter Under Saddle
Green Working Hunter Under Saddle - 2nd year
Arabian Costume
Junior Jumper - Bonus Point
Three Gaited Amateur
Morgan Amateur
Five Gaited Amateur
Arabian Pleasure Stake

Monday, September 2

A.M. Judging 4-H Western Horse and Pony
Showmanship Finals

8:15 Horse Show:
Amateur Owner Jumper
Pleasure Morgan Stake
Three Gaited Novice
Pair over 3600
Horsemanship over 14 years
Horsemanship 14 years and under

8:45 Polo Tournament
4-H Horse Show:
Western Showmanship Final
Western 2-year-olds
Western Mares
Western Gelding
Western Reining Horse
Western Reining Pony
Western Pleasure Pony
Costume Class

10:30 Country Music Show
Vaudeville Varieties '68

11:00 Free National Championship Microd Races

P.M.

12:30 Horse Show:
Green Hunter Stake - 1st year
Green Hunter Champion - 1st year
Green Hunter Champion - 2nd year
Green Hunter Stake - 2nd year
Junior Three Gaited Stake
Junior Jumper Stake
Junior Jumping Champion
Half Arabian Western Champion
Horsemanship Champion
Three Gaited Stake
Morgan Stake

1:00 N.Y.S. Champion Stock Car Races - 5 events

4:30 N.Y.S. Fair Talent Hunt Finals

6:30 Horse Show:
Junior Hunter Stake "A"
Junior Hunter Champion "A"
Junior Hunter Stake "B"
Junior Hunter Champion "B"
Half Arabian English Pleasure
Six Horse Hitch
Green Jumper Stake
Green Jumper Champion
Arabian Stake
Five Gaited Stake
Working Hunter Stake
Working Hunter Champion



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by Robert Clingan

EXPECTANCY

It has been a long time since Christmas, but a theme of and insight into one of the nativity stories keeps coming to mind. This thought is an answer to the dilemma of the innkeeper in the story. We may have wondered why he did not make room for the Holy Family, and a better place for the birth of the child who was to become the founder of Christianity.

Among the many good reasons that explain his conduct and lack of true hospitality to this family above all families was simply, "He did not know he was coming." As far as the innkeeper was concerned this was just another night of business, of keeping travelers contented, of turning away as few as possible, and keeping all who paid the price for a room in the inn. To him this was likely another day no different than all the others. The sense of wonder and of hope born of high expectancy had gone out of his soul.

Someone has described this lack of expectancy in the life of a young minister. He felt he was not accomplishing very much, especially in his preaching ministry and his Sunday services. He talked his problem over with a much older man who had had a long life of success in the ministry. As they discussed the problem the older man finally said, "You surely do not expect lives to be changed every time you preach; you surely do not expect people to be transformed and different out of every service of worship you conduct." The troubled young man answered, "Of course not." The older minister replied, "That is your trouble!"

Because the young man didn't expect great things to happen to at least some people in his congregation every time he preached the gospel, very little happened to anyone any time he preached it. The power and magnetism that goes with a high level of expectation had gone out of his preaching, and it had "rubbed off" on his congregation.

One reason why the church lacks power today is that we who make up its life expect so little from it. Each Sunday's worship is just another in a series that is nice and pleasant, occasionally interesting, but seldom exciting or life-changing. We don't expect it; and we are seldom either surprised or disappointed.

This is true in all ventures of life. How tragic when a young school teacher enters his profession with high hopes of what he will be able to accomplish in shaping the lives of the coming generation entrusted to his care, only to become another person with a job to do . . . who expects little difference to be made in the lives of those he teaches!

This can be true of a veterinarian, a doctor, a young business man, a 4-H worker, an agricultural extension agent, even a homemaker. Each can enter a chosen field of work with high ideals and great hopes, only to allow himself to be cut down to a slave of routine, a doer of only that which is necessary . . . a part of the great company of those who expect little in terms of their effect on others.

The greatest thing that can happen to a mature person is to maintain or recover a high sense of expectancy. It was William Carey, an English shoemaker, who set his church afire with a missionary vision for its day and time. The great watchword of his life was: "Attempt great things **for** God. Expect great things **from** God."

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The authors are G. W. Ware, an agriculturist with the U.S. Department of Agriculture, and Dr. J. P. McCollum, professor of plant physiology in the college of Agriculture at the University of Illinois. The book is published by The Interstate Printers & Publishers, Inc., Danville, Illinois 61832, and the list price is $8.00.



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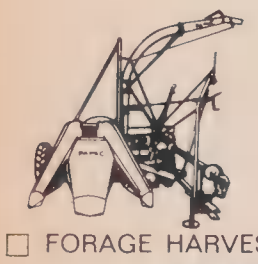
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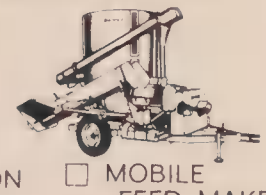


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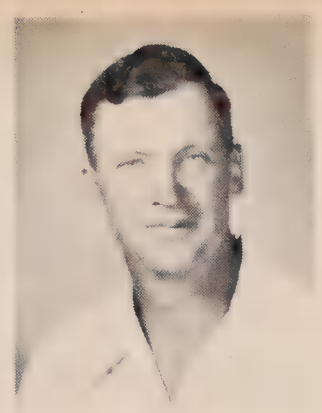
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Gayway Farm Notes

by HAROLD HAWLEY

LIVE AND UNLEARN

Last year many of us in this neck of the woods went through our first season with alfalfa weevil. We had some things to learn, but with the excellent help which we had from the Extension folks most of us got along pretty well.

Having a year's experience under our belts, and having learned how easy weevils are to kill, the only real concern we had was the cost of spraying the stubble. Yes . . . that's all there was to be to it. Just get out and get the hay off early, run over the stubble soon thereafter, and forget the whole business. While we were complacently contemplating the easy handling of "just one more problem," somebody changed the ground rules!

The hot spell in April turned on the life cycle of the weevils. They got going before the hay was cut. The spray had to be put on in many cases before the bees had ceased to work the alfalfa fields, so the "high priced spread" had to be used. On most farms the hay acreage is large enough so it is a matter of some importance whether a $3 to $4 per acre application is needed or whether something for less than a dollar would do.

Then there was the matter of how to apply the stuff. Most of us were real gun-shy of the notion of running over a hay field nearly ready to be cut with a spray rig. To go to an air application meant another $3 per acre.

To complicate it once more, not all applications, whether applied by air or ground equipment, were completely successful. Possibly this was due to the fact that the hatch wasn't an all-at-once proposition. Some weevils hatched late and had the last laugh after a spray job had already been done. We had one field which was hurt somewhat even though sprayed at what seemed like the right time.

This long hatch period posed a problem of whether to spray the stubble even if the field had already been hit earlier. Our windrower had some live weevils collected on it in every field. The question which most of us aren't really able to answer intelligently is how many weevils can you have and still have a stand of alfalfa live and prosper. It's a cinch it's not good business to spray unless the damage will be more than mild, or unless the risk to the second crop and the stand is considerable.

All this points up the fact that far from having all the answers, we were really puzzled and badly in the dark. After two years experience we should enter next year with a completely open mind uncluttered by any facts.

Hopefully, we have learned that we had better unlearn all that we thought we knew before. The variation in season, temperature, etc., etc., will likely call for a whole new and different campaign next year. Let's hope research and experience will come fast enough to keep us on top of this one. Here is just another case where the presence in the area of trained Extension people can and did make a whale of a difference to a lot of us.

One thing we did conclude was that the damage and loss to a hay crop from running over it with a spray rig is not as severe as expected. The difference in cost of application makes us feel that ground equipment still has a place in this battle.

OPEN THE DOOR

A couple of generations back an Irish family came into our area and made quite a name for themselves in business. Subsequent generations were also successful in the large cities.

An employee of the first generation here recalls that his job included opening up and sweeping out the store each morning. In spite of his promptness, he almost never beat "the boss" to the place. The hustling owner had figured out that he couldn't sell his goods unless he was open. By being open early and ready with the goods he made some sales and attracted some customers while his competition was not yet open. This kind of hustle and service got him a long piece up the road to success. Some of his sons and nephews apparently learned their lessons from this early trader.

As margins decline and costs rise, it is understandable that any dealer or merchant wants his money in fast-moving items. On the other hand, that which he doesn't stock can make him no money and in fact may help his trade decide to go elsewhere. Just like the storekeeper mentioned earlier, if the store is open and the shelves stocked, that establishment gets the vote of the customer.

Over the years, we have gradually come to do the bulk of our business where we have been able to get parts and service. There are some dealers who are excellent in this regard, and we are fortunate to be able to do business with them.

Every now and again, how-

(Continued on next page)

ever, we choose to buy something elsewhere, and live to be amazed and annoyed at the policy on stocking parts and giving service. An experience like this every now and again makes one appreciate his regular dealers even more. What bugs me is how one can expect to make repeat sales if he doesn't service his customers. Likewise, I'm puzzled how anyone in business can afford to pass the sales potential for parts he doesn't have on hand. Most folks can't or won't wait for a special order to be rushed through very often.

No fairminded person expects to always find all the parts he may need, but he sure soon learns what places have the best batting average in this regard. Just as the Irishman found, this brings in the customers.

LAND PRICES

An area in southwestern Indiana that I used to know fairly well is neither the best nor yet the worst of the Corn Belt. Recently it has been changing hands at about $600 an acre. Money from the city! I don't know what this land is worth, but not nearly $600. Land as a hedge against inflation begins to lose some of its appeal when the first cost is possibly 50 percent too high.

The implications for regular farmers are many and somewhat depressing. They will either forego the expansion they need to make or go deeply into debt trying to buy this high-priced land. Eventually the ownership and control of much of the land in the area will pass out of the hands of farmers.

The absentee landlord will, of course, rent the farm to a farmer. This is not bad as long as there is a fair, long-term lease which insures good farming practices, and gives some assurance of stability and permanence for the man who operates the farm.

If one wants to get philosophical about it all, he must begin to wonder if this won't be the pattern of land ownership over the country down the road a few years. As there are and will be more and more highly paid nonfarm people with money to invest and a desire to own some land, competition will bid land prices up and it will go to those best able to pay for it.

NEW WEEDS

Each year sees an increase in the number of varieties of weeds which escape the weed sprays. Having gone through a season without harm, these rascals put out seeds by the hundreds. Pretty soon they get to a point where they need a special spray. Giant foxtail and buttonweed are just a couple which seem to be thriving here as a result of little competition from other weeds, and sprays which don't touch them.

Another corn field and oat field weed seen occasionally this year is corn. Where corn was not picked till this spring, much has volunteered. What a mess! Nothing but a cultivator will help in the corn, and heaven help the poor guy who must combine a field of oats with much of this corn in it. We went through this once several years ago and remember it with a shudder. Making oatlage from such a field of oats would make the job easier!

HATS OFF AND THANKS!

In our various communities are volunteer firemen's groups and first aid ambulance squads. With the training courses they now have, radio equipment, and mutual aid, these volunteer outfits have become pretty proficient and professional.

Most of us can remember the time when a farm fire was an occasion for much excitement, confusion, and uncoordinated effort (maybe even insubordination as each man had his own ideas of what needed to be done).

A traffic jam along the road leading to the fire was an almost foregone conclusion, with the result that late-arriving equipment and/or tanker trucks hauling water might be greatly delayed.

When the siren rings today, these volunteers swing into action in an orderly, disciplined way, on the double, without a lot of shouting and aimless running around. Traffic control is an integral part of the whole operation.

I recently saw our ambulance first-aid squad perform in a most commendable fashion. After responding to a call in an unbelievably-short time, they were in the building with oxygen and a stretcher in a hurry . . . but again in a brisk, business-like way. Their use of the oxygen and their skilled handling of the victim, their organization in getting the stretcher down some stairs and through doors and into the ambulance, was a professional job. Up to the point of delivering the patient to the hospital, these men had done all that could be done correctly and fast.

It's a fine thing to have dedicated men willing and able to perform this kind of service in their communities. They surely deserve our thanks and our support.

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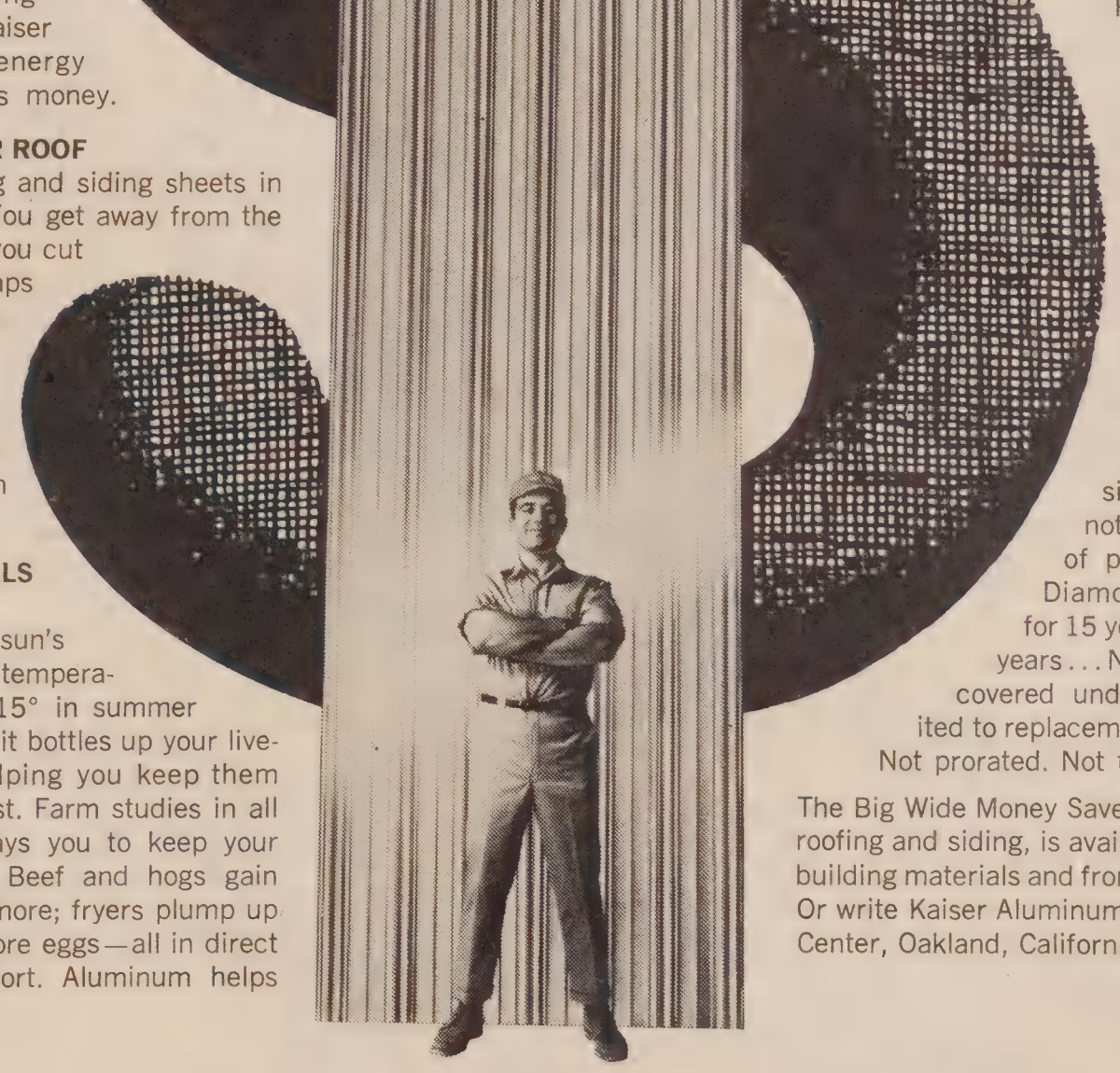
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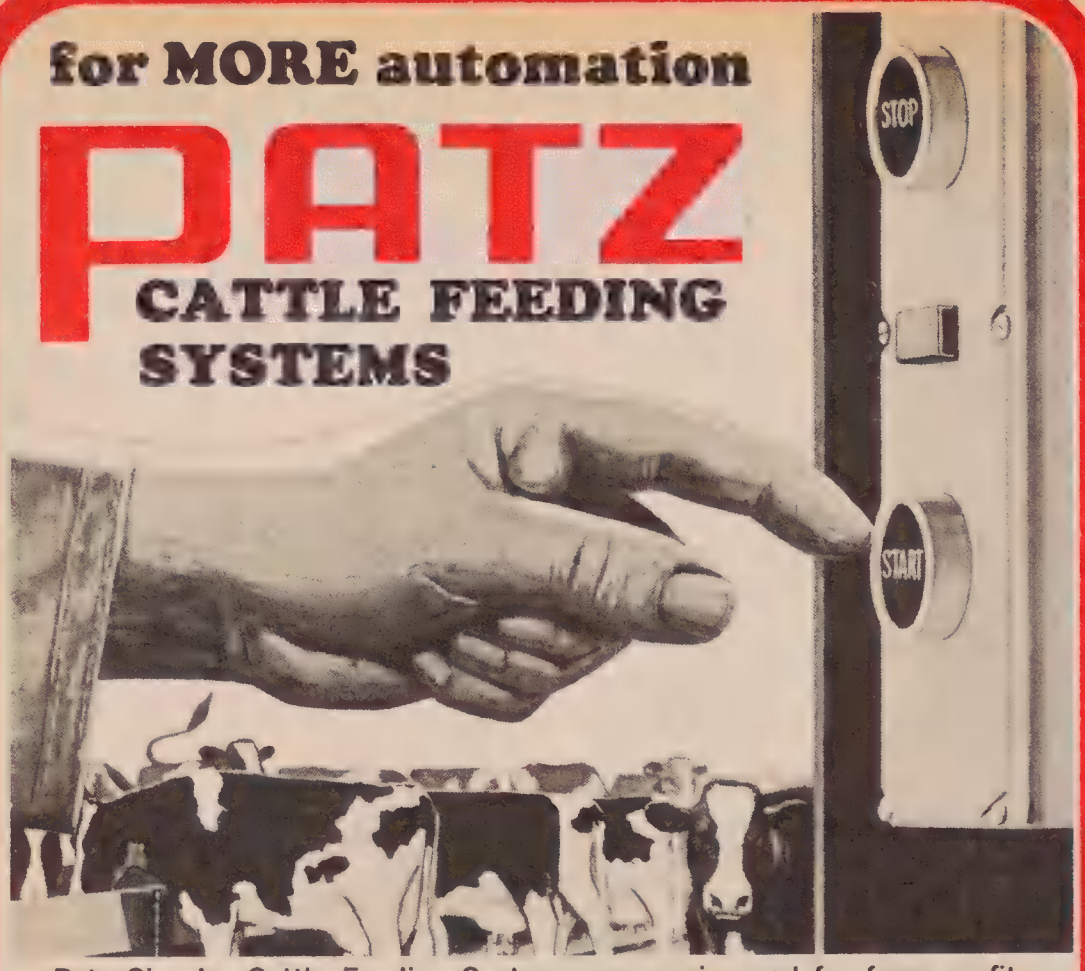
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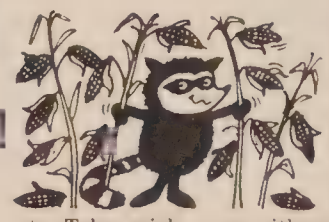
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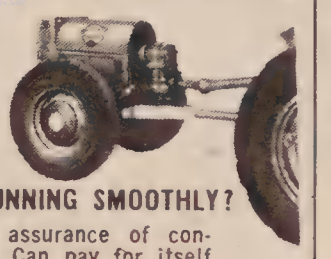
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Dollar Guide

For The Northeast Farmer

USDA has set 1969 wheat allotment at 51.6 million acres, 13 percent less than this year. Aim is to cut crop by 300 million bushels. Price support loans on 1969-crop wheat will continue to be available at a national average of $1.25 per bushel.

CROP AND LIVESTOCK marketings in 1968 are expected to be (in total quantity) at about 1967 levels. The relatively-stable supplies, combined with expanding customer demand, imply higher farm prices on the average. The USDA estimated cash receipts for 1968 to be about $44 billion, as compared with 42.5 billion in 1967. Direct government payments to farmers are expected to increase about 10 percent from the 1967 level of $3.1 billion. Of course, production expenses also are increasing, and are expected to offset more than half the rise in gross income. Thus, the USDA estimates that net farm income will total about 5 percent higher in 1968 than in 1967.

THERE WERE an estimated 59.0 million hogs and pigs on U. S. farms on June 1, according to USDA's Crop Reporting Board. That's down 1 percent from a year ago. The June-November pig crop may total 44.1 million head, up 2 percent from last year. That would put the December 1967-November 1968 pig crop at 91.8 million, up 3/10 of 1 percent from a year earlier.

THE POULTRY SURVEY COMMITTEE of the American Feed Manufacturers Association makes the following estimates: For 12 months beginning July 1, U. S. farm egg prices will average about 5 cents above the previous 12 months. This is likely to result in a 10 to 15 percent increase in egg-type chicks hatched in the first six months of 1969, which would depress prices when they get into production. Costs are likely to increase about 1 cent a dozen.

Farm prices for turkeys in August to November are likely to average 21.5 to 22 cents, about 2 to 2.5 cents above a year ago.

July to December ready-to-cook broiler prices may be 1 cent above last year.

EFFECTIVE JULY 1, the New York-New Jersey Milk Marketing Order has been amended to set the Class I (fluid) milk price at $6.49 per cwt. until April 1, '69, an increase of 10 cents per cwt.

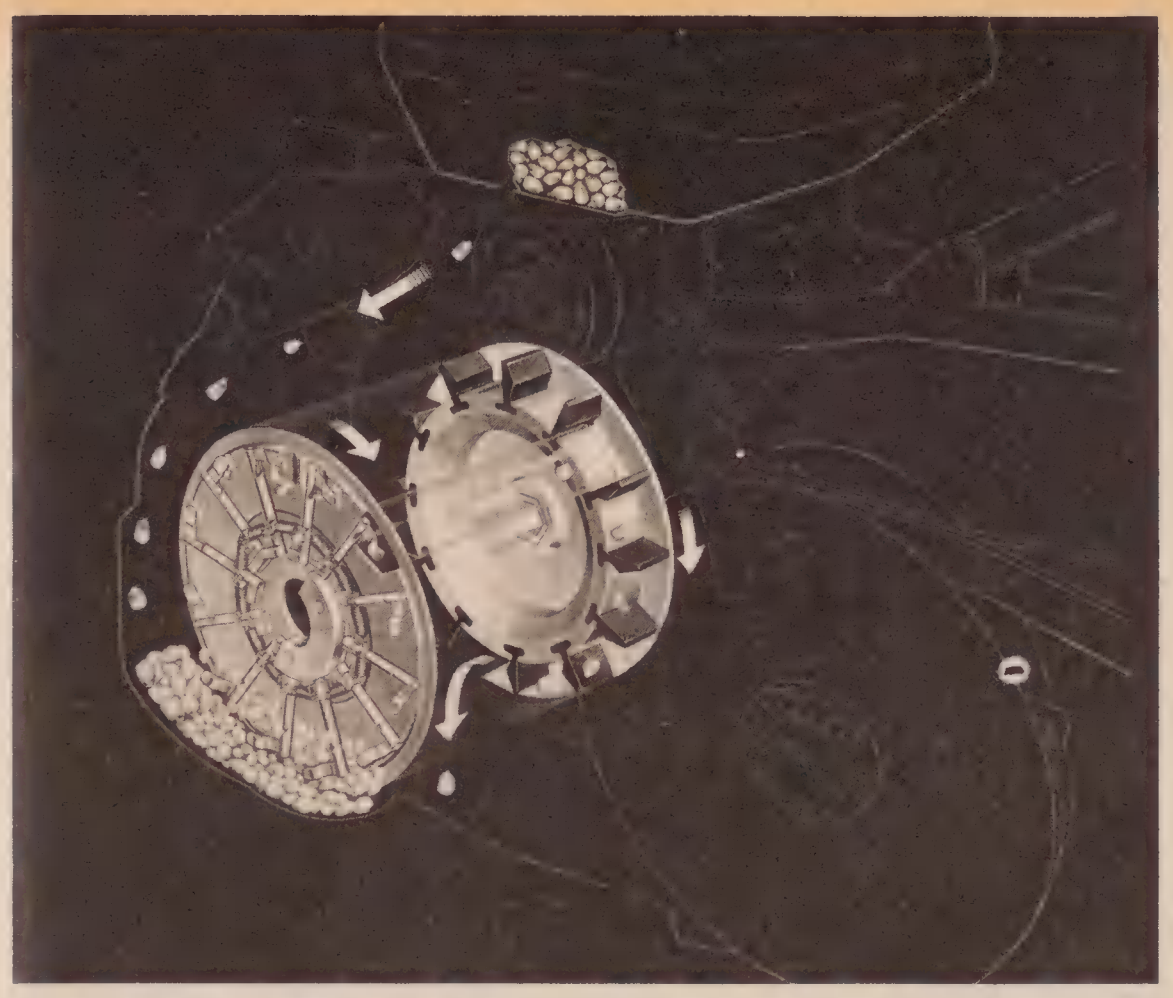
Also, the butterfat differential for Class I milk has been increased by about 4 cents a point for milk testing above 3.5 percent butterfat. It has been estimated that, as a result, gross income of dairymen under the Order will be increased by $12 million.

POULTRYMEN should clean air intake fan openings ... as well as all items involved in air movement ... this time of year when too-high temperatures can cut egg production. Every poultry house should have both "power-off" and "high temperature" alarms.

"CHEMICAL CONTROL OF BRUSH & TREES" (Farmers Bulletin No. 2158) is name of recent USDA publication. Single copies are available free by writing Office of Information, USDA, Washington, D.C. 20250.

W. D. LASHBROOK, director of dairy research at Beacon Milling Company, reminds that a cow's 305-day production can be closely estimated by doubling her production in her first 130 days of production. Also that a cow not bred 90 days after calving will cost you $1.00 a day in lost profit.

LABOR SECRETARY Willard Wirtz has modified the agricultural hazardous-occupations Order to permit the employment of 14 and 15-year-olds to drive tractors and operate other farm machinery. The change allows the hiring of these minors only after they have completed formal training in the safe use of such farm equipment. The training program will be operated through the Federal Extension Service and its cooperative units.



Here's how it works: Twelve spring-loaded fingers rotate through a reservoir of seed. As they pass through the bottom of the cycle they pick up one or more seeds. Continuing to rotate, the fingers pass over an indented relief in the plate, causing them to grip one seed; any others drop off and fall back to the reservoir. As the finger continues to rotate, it passes over a discharge opening in the disk. It ejects the seed through the opening into a seed wheel where there are 12 cells. One seed is ejected into each cell and is carried to the opener, where it is discharged into the soil.

A PLATELESS PLANTER

BACK when grandpa grew his corn seed instead of buying it, he would simply shell out kernels from the mid-cob for next year's crop, feeding the less-uniform tips and butts to hogs or cattle. After the coming of hybrid corn, seed was much too valuable to feed, so seed producers started screening kernels as carefully as they could, selling the whole crop as "sized" seed. Planter engineers designed more seed plates accordingly (today a planter factory may stock 100 or more different patterns).

The result, of course, has been a tolerable compromise. Each kernel within a seed lot is unlikely to be a perfect match of any of its fellows, let alone all of them, so a seed plate must accommodate a range of seed sizes and shapes. Sweet corn growers know all too well that seed of this crop is especially erratic in shape.

That was the problem and the compromise until now. Today, however, to take full advantage of the great new single-cross hybrids, no compromise is possible. These high-performance seeds are almost infinitely variable because they are produced by cross-pollination on an inbred ear. Their coming was a sign that the seed plate for corn had outlived its usefulness at last.

In place of seed plates that have been used in corn planters since the turn of the century, a new line of John Deere planters will be equipped with a finger pick-up unit which isn't dependent upon uniformity in the size and shape of kernels.

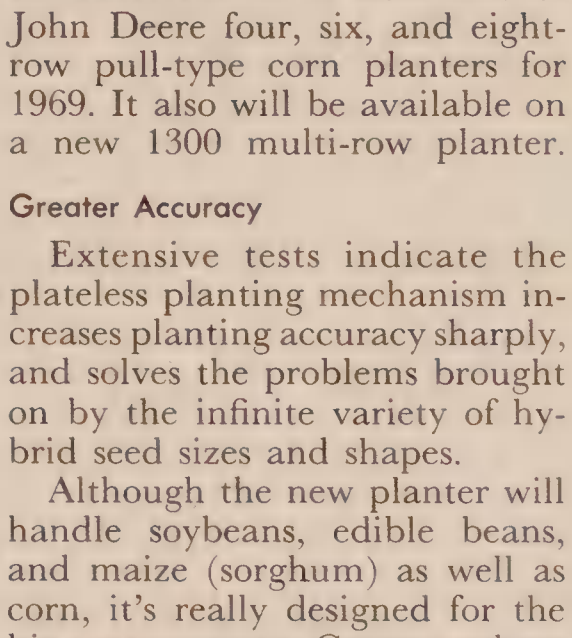
The plateless planter will eliminate the need for farmers to stock a wide variety of seed plates, or change them frequently in an attempt to match them with the size and shape of the seed they are planting.

The finger pick-up unit will be available on a new line of John Deere four, six, and eight-row pull-type corn planters for 1969. It also will be available on a new 1300 multi-row planter.

Greater Accuracy

Extensive tests indicate the plateless planting mechanism increases planting accuracy sharply, and solves the problems brought on by the infinite variety of hybrid seed sizes and shapes.

Although the new planter will handle soybeans, edible beans, and maize (sorghum) as well as corn, it's really designed for the big corn country. Growers whose primary crop is not corn or soybeans will probably continue using seed plate planters for their main crop . . . and perhaps for these crops also. But many a corn grower will hang his seed plates on the barn door with the final tribute, "May they rust in peace!"



This cutaway view shows the feed cup for accurate handling of soybeans, edible beans, or maize. The mechanism for planting corn is bypassed.



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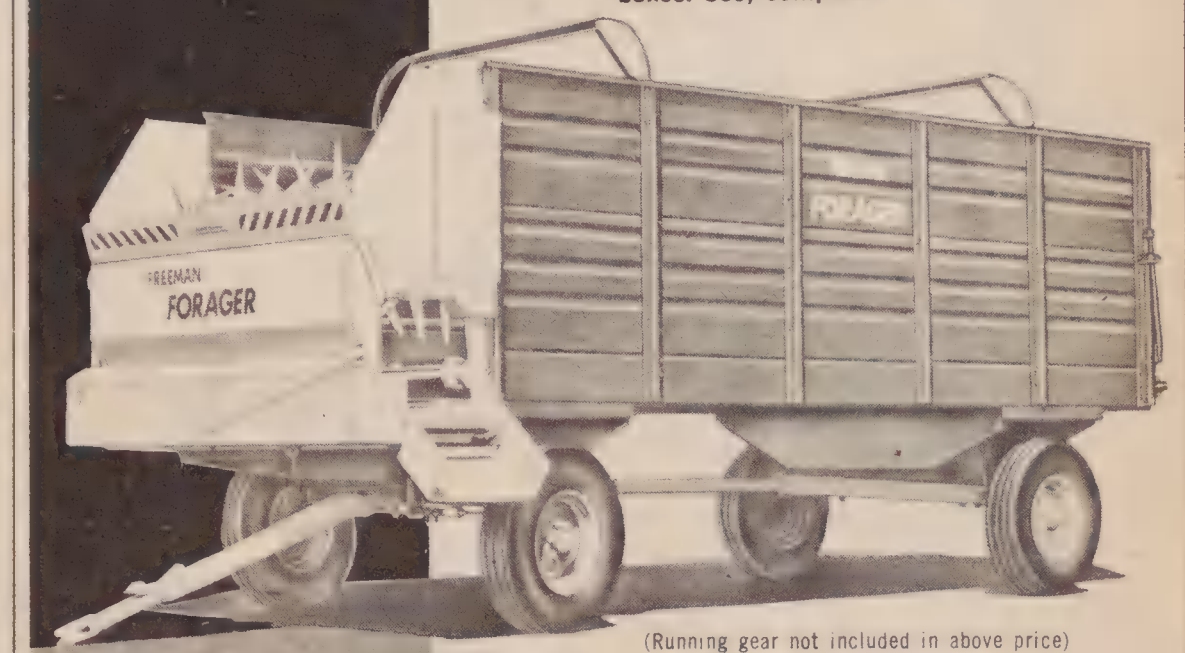
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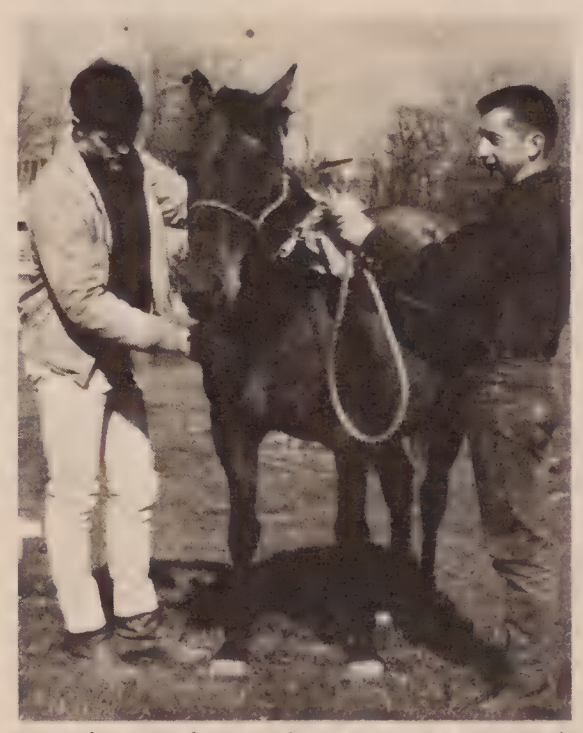
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LIVESTOCK



Mike Becker, Altamont, New York (left) and Warren Stannard of Cherry Valley, New York, groom Cobleskill A&T horse Shiney Red.

Horse Course – Donald Burton, on the staff of the Agricultural and Technical College at Cobleskill, New York, has written AA about courses in Light Horse Husbandry being offered at the College. Introduced in the fall of 1967, it has been well received . . . with 40 students enrolled in the class for the '68 fall semester. Formal training leads to the Associate in Applied Science Degree, and fits students for employment in the field of training and care of horses.

Dairy Beef – Interested in growing out dairy animals for beef? Dr. W. A. Cowan, head of the Department of Animal Industries at the University of Connecticut, Storrs, Connecticut, can provide you with research information. He comments that:

1. Dairy steers having Holstein, Ayrshire, and Brown Swiss bloodlines generally are more satisfactory for beef purposes than Guernsey or Jersey breeds.

2. Dairy and dairy-beef-cross steers have advantage of lower cost as feeders, more rapid gains, less fat and waste than most beef animals. Disadvantages as compared to regular beef breeds include lower quality grades, lower market price when finished . . . and some can't reach "good" or "choice" grades.

Beef Breeding – Estrus synchronization in beef cattle "is no longer on trial" but is a proven concept that can provide an effective management tool in an otherwise well-managed herd.

This opinion was expressed by Dr. Robert G. Zimbelman of The Upjohn Company's Agricultural Products Division. He reported, "There should be no doubt that artificial insemination of beef cattle can be performed with first service conception rates as high as 60 to 80 percent, if the cows have the ability to conceive.

"Artificial insemination and estrus synchronization share a common situation in that the results of each are largely influenced by the management and nutrition of the cows involved."

His report was based on trials involving about 7500 head of cattle under practical conditions. Estrus synchronization is achieved by feeding a hormonal supplement, Repromix, on the market for about two years.

Hog Production – Recently it was disclosed by the United States Department of Agriculture that genetically lean hogs produce more lean meat than genetically fat ones . . . it's better to "breed lean" than "feed lean."

R. J. Davey, D. P. Morgan, and C. M. Kincaid of the Agricultural Research Service, a subsidiary of the U.S.D.A. at Beltsville, Maryland, studied the overall effects of differences in both breeding and feeding on meat quality. Duroc and Yorkshire hogs of both high and low fat lines were used in the study. It was shown that low-fat Yorkshire hogs produced 66 pounds of lean meat when full-fed, and 59 pounds when fed a limited ration.

Conversely, the high-fat line produced 52 pounds of lean on full feed, and 55 pounds on limited feed. It is important to note economically that limited feeding of the genetically lean hogs tended to slow down their growth rates.

(Continued on page 31)



Leonard DeGroat, Lyons, New York, with six Holstein dairy cows exhibited at the recent National Agricultural Fair in Portugal. Three animals (from top: 1, 3, 5) came from the Howe Family Farms at Tunbridge, Vermont. Exhibit's purpose was to encourage sale of more U.S. farm products to Portugal.

ANDERSON ROCK PICKER

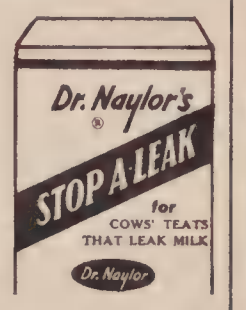


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New Drug – The Veterinary Sales Division of CIBA Pharmaceutical Company has developed "Vetisulid" (sulfachlorpyridazine), a fast-acting, broad spectrum, antibacterial agent proven to be highly effective against Escherichia coli.

E. coli is the most common cause of infections of the gastro-intestinal and uro-genital tract. The organism, which has become resistant to many drugs now on the market, is responsible for more losses in piglets and calves than any other.

The new drug is sold only to veterinarians.

Swine Program—Armour and Company, 401 North Wabash, Chicago, Illinois, is offering a new contract purchasing plan guaranteeing prices up to six months in advance. The agreement not only stipulates the price, but also the number of hogs to be purchased, delivery date, and amount of advance partial payment. The contract can be used to secure a bank loan, and is offered on both a live grading and grade-and-yield basis.

The producer knows in advance what his price will be so he can make solidly-based plans . . . and Armour can more readily predict production schedules, anticipate plant work loads, and meet retailer requirements more efficiently.

Feed Additives – Research test results comparing performance of heifers on MGA (Melengestrol Acetate) and diethylstilbestrol (DES) have been released by the Ralston Purina Company of St. Louis, Missouri 63199.

Growth response was measured on both heavy and light heifers. Heavy heifers (initial weight 558 pounds) on MGA gained 7 percent faster on 3 percent less feed, while the lighter heifers fed MGA (initial weight 458 pounds) gained slightly less than those on stilbestrol and required slightly more feed per pound of gain. Heifers must be open for MGA to work. Following these and other test results, Purina recently introduced a ration for finishing heifers containing 35 mg. of MGA. "MGA is a real breakthrough," says Dr. Dean Hodge, Manager of Purina Beef Cattle Research.

HOLSTEIN STEERS

Harold Soper, who farms near Seneca Castle (address: R.D. 2, Geneva, New York), recently fed out 40 Holstein steers.

Averaging 336 pounds at the beginning of the feeding period, these animals each averaged 2.54 pounds of gain per day during the first 56 days on feed . . . and 3.38 pounds over the next 56 days. Feed per pound of gain was 5.95 pounds for the first 56 days . . . and 4.67 pounds the next 56 days.

It's a full-feed program that does not involve any roughage, and is a part of Agway's research efforts on Holstein beef. The Sopers have a considerable quantity of corn to market, and prefer selling it through animals.

There are also 30 sows farrowing twice a year (July and January) on this farm, and plans call for 45 sows in the near future.



HEREFORD SHOW CHANGES

With a series of sweeping changes, the American Hereford Association has accomplished a nearly complete overhaul of its traditional stock show procedures.

The following rules will be effective January 1, 1969:

A. The Judge will be furnished weight-per-day-of-age on each animal in the breeding classes so that he can interpret weight with degree of finish.

B. Judges will be encouraged to accept cattle with less finish so that breeders will be willing to bring cattle to the shows in more practical condition.

C. All breeding cattle will be cataloged and lined up in the show ring according to age.

D. The AHA will not pay premiums on breeding animals entered by any herd with a nurse cow at the show.

E. Judges will be asked to make comments on class placings and the champions.

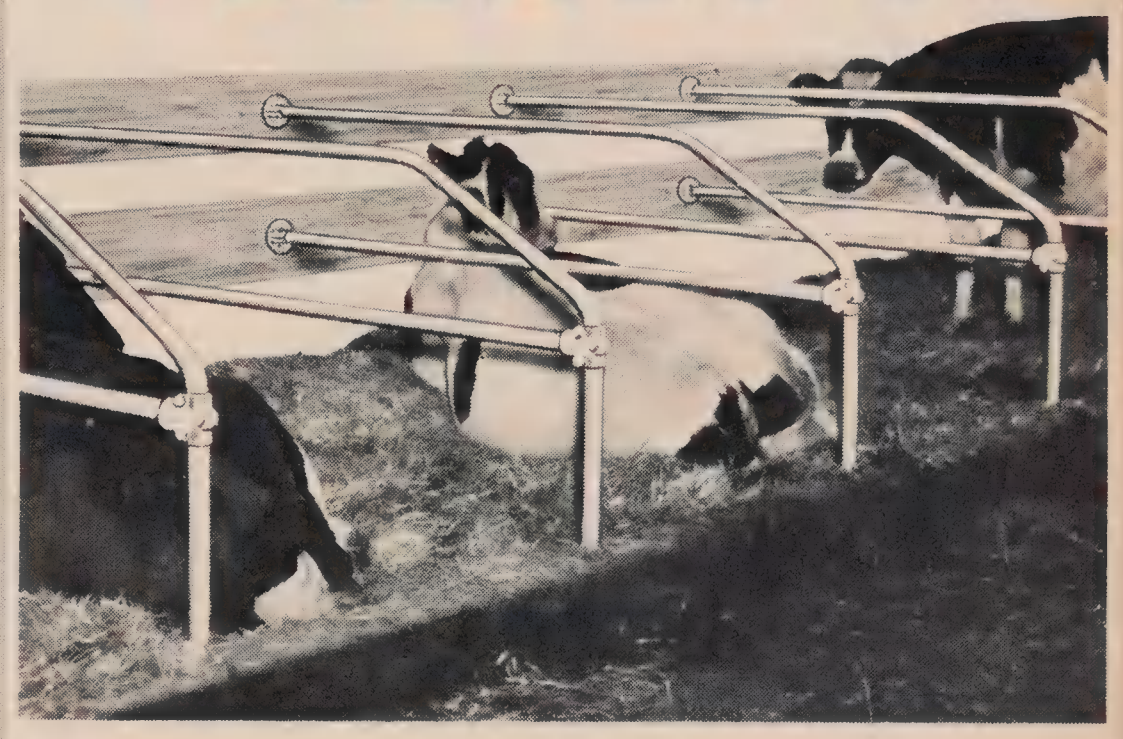
F. So that the needs of all segments of the industry will be more closely tied together, the Association recommends that shows make frequent use of the same judge for both breeding and slaughter classes.

G. Spot checks by dental examination for age will be continued on breeding cattle.

H. Breeding cattle classes will, henceforth, be identified by birth dates and age in months to more closely identify age of cattle.

Effectively, by these changes, the Association has eliminated the junior bull calf class during the fall season and the spring bull calf class in shows after the first of the year. Also eliminated for the entire show season are the senior and junior yearling heifer classes. The junior heifer calf class has been eliminated during the fall season, and the spring heifer calf class is dropped from the spring season.

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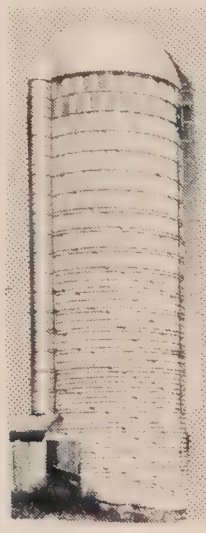
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ALL CORN SILAGE

BROTHERS Avery and Calvin DeGolyer of Castile, New York, planted 200 acres of corn this year . . . almost an acre for each one of their 207 cows. With the exception of short periods in the summer . . . one when cows get all haylage, and another when they are being fed haylage **and** corn silage . . . the herd at Reylog Farm eats corn silage as its only roughage.

No grain is fed in the double-six herringbone milking parlor; it's added instead to the silage on the way to the feed bunk. The herd is divided into four groups according to levels of production . . . and varying amounts of grain are added to silage being mechanically conveyed to each group.

Materials Handling

Corn silage can be an engineer's dream because of its ease of materials handling, and it's often an agronomist's dream in terms of TDN per acre. However, when fed alone it can at times be the innovator's nightmare . . . and it has presented some problems for the DeGolyers.

Back in the winter of 1965-66 . . . after a bitterly-dry growing season . . . Cal and Avery were feeding especially-high levels of grain in order to conserve their scarce supply of corn silage roughage. They ran into a serious butterfat depression, and concluded that it was caused by insufficient fiber in the ration.

However, in the winter of 1967-68 . . . after a bumper crop season when they had roughage running out of their ears . . . fat depression struck again . . . the herd test dropped to 2.8 percent. The cows began to fatten up . . . putting fat on their backs instead of in the milk.

Furthermore, total pounds of milk produced sagged because cows were peaking at lower milk-per-day levels than they should have been, and their lactation curves were dropping after peaking more rapidly than normal. And this time insufficient fiber didn't seem to be even a logical suspect. The grain ration, by the way, carried supplemental vitamins A, D, and E.

Correlation

Many of the experts claim that the level of protein in the ration has no correlation with butterfat test, but it has long been accepted that protein level is important to milk production. The DeGolyers had been feeding a ration with 20 percent protein . . . saw a considerable improvement in test and milk quantity after moving to a 22 percent ration . . . and still further gains at 24 percent (herd test up to 3.6 percent). The April 1968, rolling DHIC herd average

(Continued on next page)

McCONNELL FARM EQUIPMENT

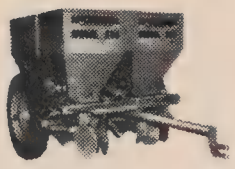
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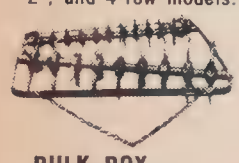


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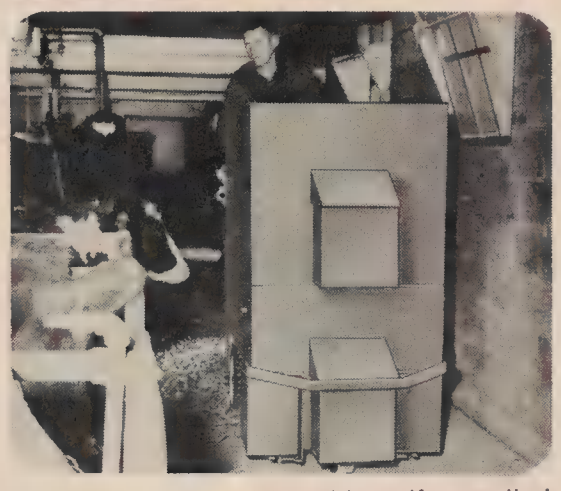
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The "little" silo at the rear is a 22 × 60! The big tub at Reylog Farm is a 30 × 80, holds approximately 1700 tons of corn silage.

was 14,082 pounds per cow . . . up from 1967's comparable figure of 12,032.

In an attempt to learn more about the problem, the DeGolyers have worked with a broad range of dairy specialists in the Extension Service and industry. Since Penn State University has a forage testing service, Professor Richard Adams, dairy specialist at that institution, has become involved.

Sulfur

He points out that sulfur is one of the building blocks used by the cow to create the amino acids that make up proteins, and recommends that sulfur should be present in the ration at a minimum level of .2 percent of the total dry matter.

A sample of Reylog Farm corn silage turned out to have only .01 percent of sulfur . . . unusually low.

So the next step in the "battle of the butterfat" is to add four pounds of flowers of sulfur per ton of grain (.2 percent) . . . with a level of 20 percent protein . . . and see what happens. As any dairyman well knows, protein supplements are expensive, and the savings on each lower percentage point can count up fast with a herd of this size.

Urea

The DeGolyers used urea with corn silage for two years, but quit in favor of including the maximum recommended amount in the grain ration. Some dairymen conjecture that urea depresses fat test, but there doesn't appear to be any consistent pattern in college experiments or on the farm to bear this out.

Reylog Farm is operated by three men . . . full-time employee Gary Pirdy being the third man. Gary has been here for seven years, and he's the kind of person who takes an active interest in management decisions. He gets a month's vacation every other year, two weeks of vacation on the "off" year . . . the same as do Avery and Cal. In addition, each gets five days off every six weeks.



Cal (left) and Avery DeGolyer check herd records.

KETOSIS CURE



Ketosis of dairy cattle, a puzzling disease sometimes affecting cows at the peak of milk production, can be cured with a highly-effective treatment developed by scientists of the Agricultural Experiment Station at The Pennsylvania State University.

The treatment includes one injection with a nutrient called methionine, followed by use of capsules containing a well-known poultry feed supplement chemically related to methionine. The development is still in the experimental stage.

Advantage

A major advantage of the injection-capsule procedure is that the farmer can continue the treatment after a single visit from the veterinarian. The new experimental treatment appears to give quicker recoveries than other treatments involving insulin and cortisone-like drugs.

Ketosis, bearing superficial resemblance to human diabetes, afflicts about a million cows in this country annually. Such dairy cows "go off feed," lose weight, and reduce their milk output. At the same time, their milk develops an off-flavor, due to the accumulation of substances called ketones in the blood stream. In some cases, the disease results in serious mental disorders.

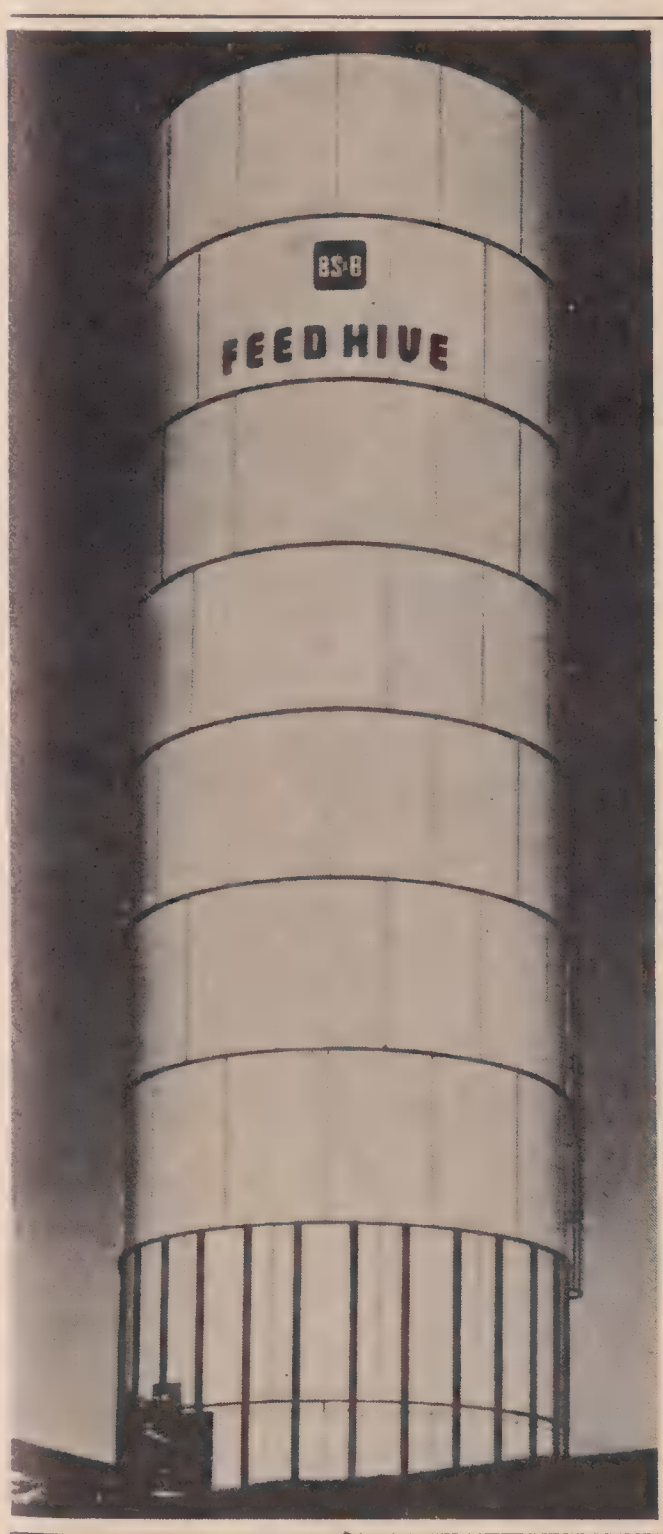
Found Cause

The Penn State researchers believe they have pinpointed the cause of the disease as a methionine deficiency which triggers off a chain of detrimental events in the cow's milk-producing machinery. The disease usually occurs when the cow's system is in "high gear," producing milk at such a level that she can't eat enough to keep up.

Analysis of the blood of the University's Holstein dairy herd indicated what may happen when the methionine-deficient cow gets ketosis. The analysis showed a decline in certain blood serum proteins and a rise in the amount of "fatty acids" that the blood contained.

In the complex chemistry underlying milk production, methionine appears to help hook up essential proteins with substances in the blood called phospholipids, the Penn State team found. This combination is necessary before fat can be transported both from the intestines, and from storage depots in the cow's own tissue, into the milk-producing glands.

When the metabolic balance swings out of line, the fats are oxidized to ketones, which spill into the urine, milk, and breath of the affected cow.



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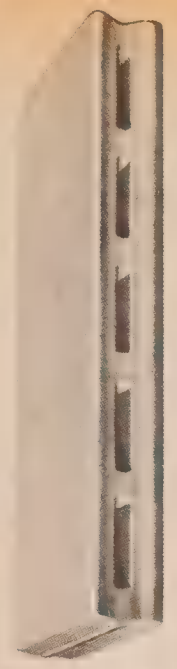
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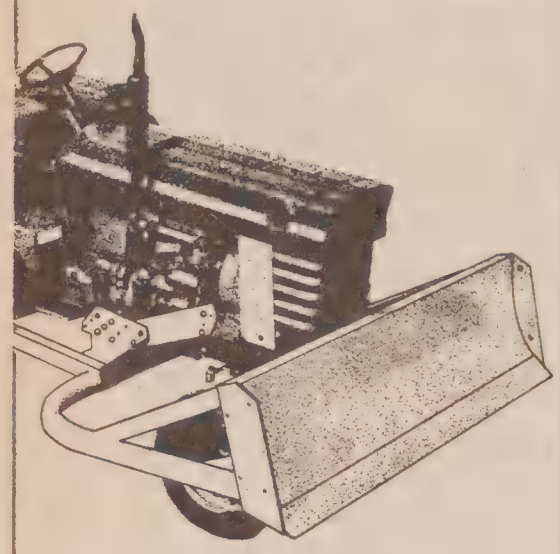
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A GOOD USED TRACTOR

by Wes Thomas

THE purchase of a used tractor is often recommended as one means of conserving scarce capital. However, the apparent bargain may turn to an expense if your selection is not a careful one.

You should first consider whether to buy from a dealer or from a farm auction.

Generally, a farmer selling out has at least one tractor for sale. Occasionally, you may find a good one, but remember . . . you buy "as is." If it falls apart the same day you get it home, it's still your tractor.

There are some advantages in buying a used tractor from a nearby dealer who sells the same make new tractor. One: he will usually make a limited guarantee, especially on late models. Two: he becomes the best source of repair parts. There's nothing more disheartening than a breakdown during the busy season . . . with the nearest parts three counties away! Three: a dealer familiar with your tractor tends to do a better job of reconditioning.

What To Check

Reputation . . . When buying from a dealer, it's a good idea to know the general reputation of the make and model tractor you're considering. This knowledge puts you on the right track toward buying a good used tractor.

General appearance . . . The paint condition of the sheet metal (providing it has not been repainted) and overall appearance of the tractor indicate the former owner's care. Remember . . . the condition of the "outside" usually reflects the condition of the "inside."

Tires . . . You should carefully inspect the tires. Treads will usually be worn, but pay particular attention to the condition of the casings. If they are in good condition, they can be recapped at a cost considerably less than the purchase of new tires. However, if the sidewalls have small cracks or large cuts, the tires should be replaced.

Radiator . . . Look for any signs of previous damage caused by the fan blades striking the radiator core. Then you should check for leaks. Leakage around the hose connections can be easily corrected, but leakage from the radiator core, top tank, or bottom tank is an expensive repair.

How to Investigate

First, try the starter with the ignition switch "off". Does the starter spin the engine readily? If not, it may mean a dragging armature in the starter or a low battery that needs charging.

Next, as the starter turns listen for a steady sound indicating good engine valves. An uneven, up-and-down sound indicates at least one valve is leaking. (A leaking valve momentarily relieves the load on the starter, thus producing the uneven noise.)

To further check the valves and piston rings, crank over the engine by hand. You will feel the resistance as each cylinder comes to the compression stroke. If any of the compression strokes seem weak, remove the spark plugs, squirt two or three tablespoons of engine oil into each cylinder, and replace the plugs. If this restores compression, the engine needs new piston rings. If the compression is still weak, the valves need grinding or possible replacement.

When you remove spark plugs, carefully inspect them. A gummy, oily deposit indicates leakage of oil past the piston rings and into the combustion chamber.

The steering system can be checked by observing how much effort is required to turn the steering wheel with the tractor moving. "Too easy" or "too hard" steering may be caused by defective or improperly-adjusted parts. In any event, check for the exact cause. The condition of the front-wheel bearings can be checked by jacking up the front end of the tractor and attempting to shake the front wheels.

Tractor Features

Points to observe in the PTO . . . Is it a "live" PTO or a transmission-driven type? This is an important item if you plan to use the tractor with a combine, baler, forage harvester, or corn picker. If it's a "live" type, is it controlled by an independent clutch or is the PTO drive and transmission tied together in a fixed clutching sequence?

You should also consider which PTO the tractor is equipped with . . . the standard speed of 540 rpm or the more recently developed 1000 rpm (revolutions per minute). Remember to match tractor PTO capabilities to the needs of your existing . . . and soon to be purchased . . . equipment. The tractor able to deliver **both** 540 and 1000 rpm would, of course, be most convenient.

Hydraulic system . . . Most late model tractors will have some sort of hydraulic and hitch system. If you already have some mounted-type implements, check the tractor to see that your present tools fit it.

Three point hitches . . . There are two sizes of three point hitches, Category I and Category II. Most of the earlier two plow tractors are Category I, while the newer, larger tractors are Category I or Category II. The differences are primarily hole sizes in the hitch balls. In most cases, you can use Category I tools in Category II tractors by using bushings on the implement hitch pins. However, you can't use Category II tools with a Category I tractor, as the pins are larger than the holes in the hitch balls.

Other items to consider . . . Listen for a high-pitched "whine" indicating a worn hydraulic pump. Check to see if the system has enough capacity to lift your heaviest implement. Is the pump "live" (independent of forward motion clutch)? Are remote cylinder outlets available for use with pull-type implements?

Field Test

In the final analysis, the best check of any tractor can be made right on your own farm. If you purchase from a dealer, he should be willing to let you test the tractor under the conditions you plan to use it. Hook up a plow, disk harrow, forage harvester, or a baler, and determine how it performs under actual operation. Be suspicious of any tractor the dealer isn't willing to let you test.

Finally, realize that the buying of a used tractor involves somewhat more risk than the purchase of a new one. However, by following the points indicated, you can select a good used tractor and keep the risk as small as possible.

The Song of the Lazy Farmer

The way my neighbor rushes 'round, you'd think he'd wear out all his ground; he acts as if the world would end before he has a chance to tend to all the jobs he thinks he's got, and so he keeps his tractor hot. I think the poor old guy will bawl if all his land ain't plowed this fall; he drives himself 'til late at night, next day he's up before it's light; he seems to like the midday heat and even hates to stop and eat. I don't know why he acts that way unless he hopes to save a day to do some other useless chore and wear himself all out some more.



One thing in which I take no stock is running races with the clock; just watching neighbor makes me tired, like all the men that he has fired I see no sense in lots of wealth if it is earned with ruined health. I don't mind scratching ground this fall but it won't worry me at all, when hunting season comes, by jing, to put the rest off until spring. Why rush to get my work all done if it means skipping all my fun? I'll work a day of normal length, but I refuse to sap my strength; and if I have too much to do, Mirandy will help me get through.



Typical steep, narrow street in the quaint old mountainside town of Taxco.

DOWN MEXICO WAY . . .

Our late winter tour of Mexico was so popular that we decided to repeat it this fall, and October 26 is the date we will leave to spend three wonderful weeks "South of the Border." In addition to visiting the places usually included on a Mexican tour, this trip will take you to villages off the beaten track to give you a close-up view of Mexico and her people.

On our way to Mexico City, we'll see Ciudad Victoria, Tamazunchale, Queretaro, and San Miguel de Allende. We'll also visit the quaint town of **Patzcuaro,** situated on one of Mexico's loveliest lakes, and the colonial town of **Morelia** with its old-world atmosphere.

In **Mexico City,** we visit the Shrine of Guadalupe, Pyramids of the Sun and Moon, University City, and attend a performance of the Folklore Ballet at the Palace of Fine Arts, also the bullfights. Next comes **Fortin** where gardenias, camellias, orchids, and azaleas grow in wild profusion. Towering over these gardens is mighty, snow-capped Mt. Orizaba, a striking contrast of snow and tropical vegetation.

Leaving Fortin, we visit Cordoba and Puebla en route to **Cuernavaca,** city of Eternal Spring. Here in the 16th Century, the Spanish General Cortez built a great palace which is preserved to this day. Next we drive to **Taxco,** one of the quaintest towns in the world, and where colonial charm has been preserved by Governmental decree.

One highlight of the trip is our visit to exotic, fun-filled **Acapulco.** We'll sun, swim and shop in this fabulous resort city, as well as take a yacht cruise around the beautiful harbor. We've been able to mention here only a few of the many fascinating places we'll visit on our Mexican Holiday. Decide now to come with us; you'll enjoy every minute and always be glad you went.

Aloha Week in Hawaii

Our Hawaiian vacation (October 12-27) starts with a wonderful day in the Portland, Oregon, area where we drive up the slopes of majestic Mount Hood and then along the beautiful Columbia River Gorge, stopping at Bonneville Dam and Multnomah Falls. The next morning we board our Aloha jet and fly smoothly across the Pacific to Hawaii. Following are just a few of the fascinating things we'll see as we visit the four main islands:

Hawaii, the Big Isle — An orchid nursery near Hilo, the Crater-to-Crater Highway and Hawaii Volcano National Park, Akaka Falls (higher than Niagara), the vast Parker Ranch, and the quaint town of Kailua on the Kona Coast. Here is supposed to be found the best big game fishing in the islands, and arrangements will be made for any who wish to try their luck. We'll also visit the City of Refuge, Captain Cook's Monument, and a coffee mill where the world-famous Kona Coffee is produced.

Maui, the Valley Isle — "The Needle," a fern covered spire rising more than 2,000 feet above the valley floor, the Pali Coast, and Lahaina, first capital of the islands and historic whaling center. Here is also a huge banyan tree, second largest in the world.

Kauai, the Garden Isle — A motor launch excursion up the Wailua River to Fern Grotto State Park, Waimea Canyon, Spouting Horn, the Napali Cliffs and Valley of the Lost Tribes.

Oahu, the Best Known Isle — Iolani Palace, Punchbowl Crater, Sea Life Park, the Polynesian Cultural Center, and a cruise of Pearl Harbor. Every evening during Aloha Week special events are staged to depict the history of Polynesia and the South Pacific.

Fall Foliage Tours

Three identical tours leaving October 3, 11, and 19 will take us through historic New England when the autumn foliage is most colorful. A few highlights of these fall vacations are Old Sturbridge Village, Cape Cod, Plymouth, Boston, Salem with Nathaniel Hawthorne's "House of the Seven Gables," Portland, the beautiful White Mountain section of New Hampshire, and Maple Grove Museum, the state capital, and marble display at Proctor in Vermont. All of this and much more for the low cost of $299 per person, from Albany back to Albany!

Other Fall Vacations

On September 4, our **Grand European Tour** party will board the fabulous Queen Elizabeth for a luxurious cruise across the Atlantic as the start of a dream vacation that takes us to England, Holland, Germany, Austria, Italy, Switzerland, and Belgium. If you've planned on going to Europe sometime soon, don't pass up this wonderful opportunity. You'll never have it again, for this is one of the last times this famous ship will cross the Atlantic!

Our **Spain-Portugal** trip leaves September 16 and includes Madrid, Barcelona, Palma, Granada, Gibraltar, and Estoril, plus a two-day visit to Tangier, Morocco, on the African coast. Everyone seems to be going to Spain and Portugal these days, and we urge you to go there with us while these countries are still unspoiled and enchanting.

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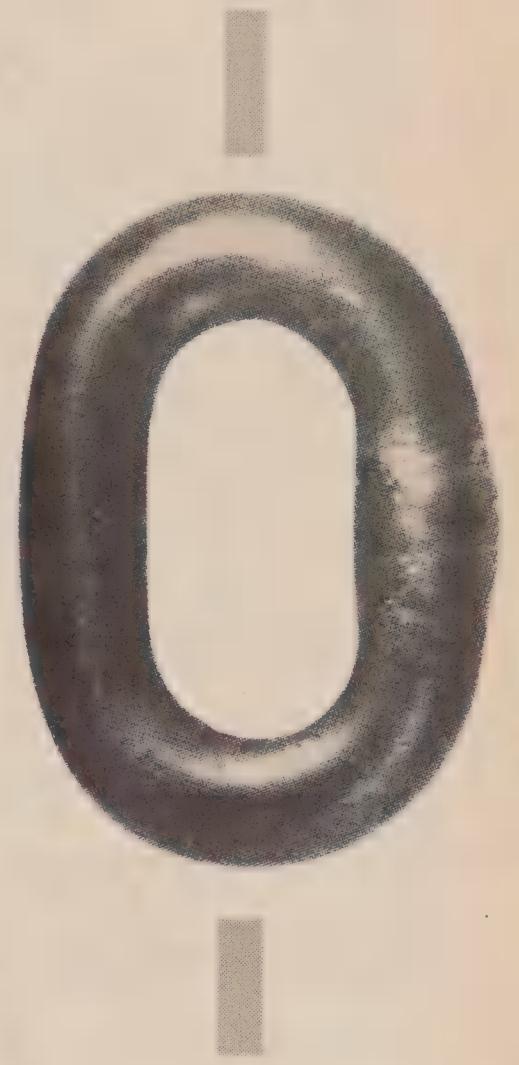
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MISCELLANEOUS

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BARN CLEANERS—silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y.

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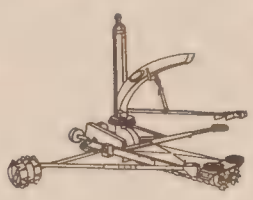
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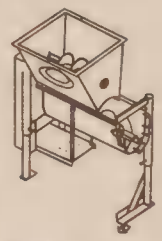
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WANTED TO BUY

OLD CONVERTIBLE CAR 1912/41 wanted. Any condition. Pay $50 information if purchased. Box 722, Paterson, N.J. 201-525-9066.

ANTIQUE GUNS, rifles, shotguns. Engraved powder horns, military swords. Please describe or send relic for immediate payment. Your satisfaction guaranteed. S. Stein, 224-24 Union Turnpike, Bayside, N. Y. 11364.

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RAISE RABBITS for us on $500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio 43050.

LADIES BEAUTIFUL NECKLACE set $2.50, $9.25 value, other bargains, satisfaction or money refunded. Established 20 years. Whaley, Box 98, Patchogue, New York.

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MAKE MONEY WITH EXCLUSIVE, Krostana Suiting Flannels. Beauty blended, finest rayon-acetate. 45 wide. Washable, Crease Resistant. Show friends, rich fashion colors, sensibly priced. Orders come fast. Operate from home. Spare time. No investment. Send $1.00 (refundable) for exciting sample collection. Kroona Fabrics, 2005-RA Taylor, Minneapolis, Minn. 55418.

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IMITATION MILK

Cornell student Thomas Kellerhals recently did a study on the attitudes of northeastern dairy farmers toward imitation milk. He received the unheard-of response of 63 percent to his mailed questionnaire . . . a total of 121 replied.

Ninety percent of the respondents had herd sizes of more than 20 cows (49 percent had 50 or more), and 69 percent reported annual production per cow of 10,000 pounds or more. Eighty-three percent had annual gross sales of $10,000 or more, and 94 percent derived most or all their income from the sale of livestock and dairy products.

Attitude questions revealed:

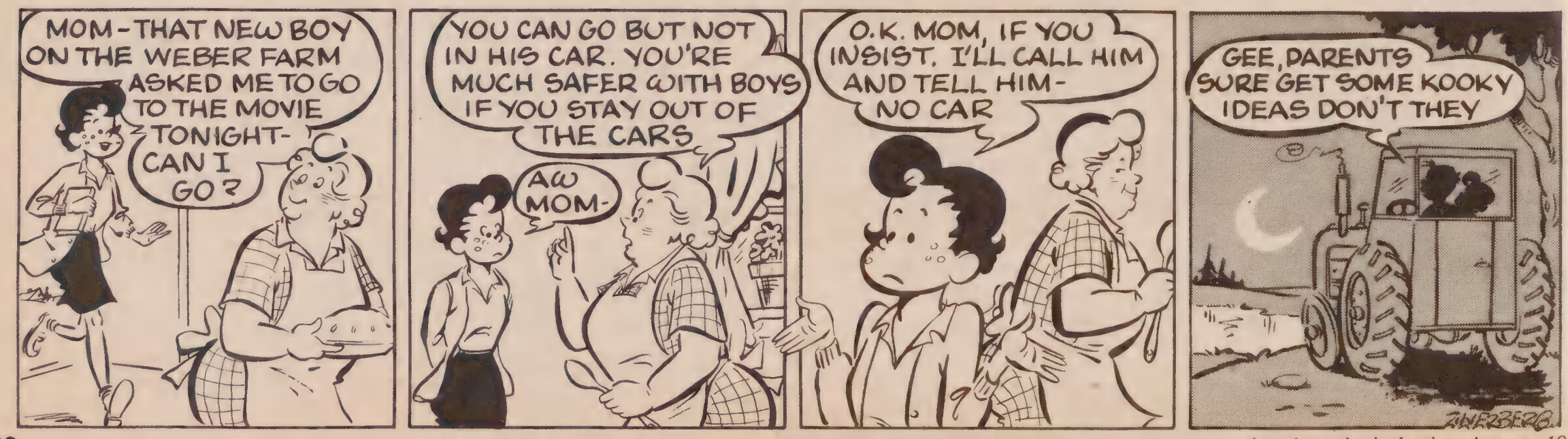
1. A strong feeling that milk and milk products consumption will increase, and that the consumption of imitation milk products will not.

2. An overwhelming majority of dairymen feel no real threat from imitation milk that would point toward leaving the industry, or refraining from business expansion.

3. New marketing methods should increase "real milk" sales, most dairymen believe, and farmers are willing to provide more money toward sales promotion efforts.

4. Dairymen are of the opinion that restrictive laws . . . preventing modification of milk and milk products . . . should be eliminated.

THE TILLERS





Dean Thomas W. Dow of the University of Vermont congratulates Ronald Huestis.

ing the college preparatory course at Bellows Free Academy.

About 125 high school seniors from every state and Puerto Rico will attend the Institute. Through workshops, talks, and tours the Institute will show the delegates the full range and complexity of modern agriculture, with emphasis on career opportunities in agricultural science, business, education, production, and marketing. The delegates will stay at the Nebraska Center for Continuing Education, and will be weekend guests of families working in the different branches of agriculture.

TWO VERMONTERS

Delegates to the National Agricultural Youth Institute, to be held in Lincoln, Nebraska, August 5 to 16, are Ronald Huestis of Bridport and Leon C. Graves of St. Albans. American Agriculturist Foundation is happy to contribute toward the transportation expenses of both boys.

Ronald, who lives on a 327-acre farm, is taking a college preparatory course at Middlebury Union High School, and is interested in both dairy farming and veterinary medicine. Leon is tak-



Extension Director Robert P. Davison checking the Institute program with Leon Graves.



COW MONITOR

The Zero Manufacturing Company, Washington, Missouri 63090 have now produced a simple, low-cost, compact, easy-to-use and clean-in-place sanitary device that enables a dairyman to keep a record of each individual cow's production and health at each milking. It's the new Zero Concord Cow Monitor. With it the dairyman can determine each day how much money each cow is making . . or possibly losing . . . for him.

The Zero Concord milking system operates by twin vacuum. Twin vacuum cuts out air injection into the milker units to move the milk through the pipeline into the bulk tank, and eliminates foaming. Since the milk is in a solid column, simplicity and accuracy are possible during tests.

The Zero Cow Monitor will be on exhibit at the New York State Fair, the Eastern States Exposition, and at Empire Farm Days. If you miss it, full information can be obtained by writing to the company at the above address.

CLUSTER FLIES

TO THE entomologist, it's Pollenia rudis; to some folks, it's the buckwheat fly . . . and to others, the cluster fly . . . but **everyone** agrees it's a doggoned nuisance around the house. It's the critter that drives housewives to spiked tea when it comes out in endless numbers to flit around windows during the fall, winter, and spring. It carries no diseases, is not associated with filth, but it fly-spots walls and windows . . . and really bugs the gals addicted to spic-and-span housekeeping.

Interestingly, the cluster fly eggs hatch into maggots that are parasites on one particular moisture-sensitive species of earthworm. During the dry years (at least in the Northeast) that included 1962-'66, earthworms didn't sally forth from the ground very much . . . and so it was slim pickin's for old Pollenia.

Requests Vary

Dr. Edgar Raffensperger, entomologist at Cornell University, comments that 350-400 requests for information on cluster fly control is normal, but during the dry years this declined until he received only 40 in the 1966-67 hibernation season. But come 1967 with a wet summer . . . lots of worms at the surface . . . rapid multiplication of cluster fly numbers . . . and a flood of nearly 1000 letters asking how to clobber the cluster! Dr. Raffensperger, by the way, is heading up a research project at Cornell on cluster fly control measures.

Research indicates that this fly will travel at least 300 yards, so trying to kill its eggs or larvae on the individual houseowner's lawn doesn't make much sense. Furthermore, it's theoretically plausible that cluster flies could be eliminated by closing all entrances into houses . . . but this has proven to be a practical impossibility in most cases. Spraying the sides of houses with toxic chemicals at the time flies are moving into the house in the fall has its hazards and limitations, too.

Control Measures

This leaves, as the major alternative, trying to kill the cluster fly **after** he has moved into warmer quarters (your house) for the winter. Attics can be treated with insecticides sprayed into the air and on walls . . . or resin strips impregnated with an insecticide may be used.

An example of a spray would be methoxychlor . . . available at most farm and garden stores. Shell Chemical has an insecticide "No-Pest" strip available at many stores and Shell service stations . . . active ingredient is called DDVP. Strips can be safely hung in attics or in most any room, even where food is being served.

Americans are always seeking "instant answers" to vexing problems . . . but there isn't any free or easy answer to the problem of the cluster fly. Best approach is to exclude as many as possible by plugging up the biggest avenues of approach to your house . . . and then tackle them with spray or strip.



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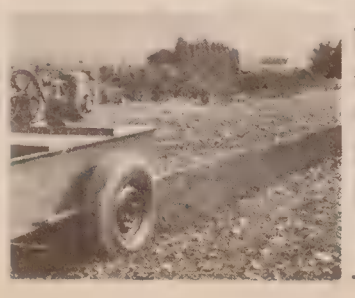
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4820. Curved seaming, high-rise neck. PRINTED PATTERN, New Misses' Sizes 8-16. Size 12 (bust 34) 2-3/8 yards 39-inch. 35 cents.

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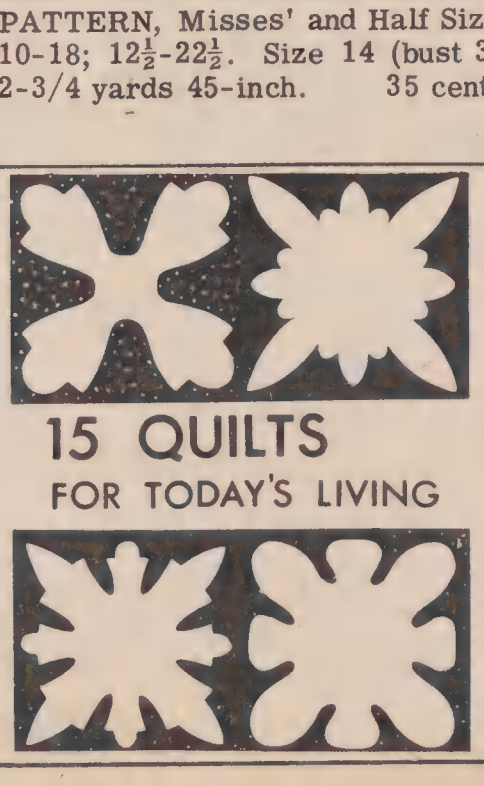
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4814. Zip closing for gay school-timer. PRINTED PATTERN, Girl's Sizes 6, 8, 10, 12, 14. Size 10 takes 1-3/8 yards 45-inch. 35 cents.

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FUN FOR ALL!



Welcome to the 1968 New York State Fair! Just before the crowds arrive, there is still time for us to take a quick tour of the Art and Home Center, as it stands in readiness for the 550,000 people who are expected to pour through the entrance gates this year.

The Creative Cooking Department is ready to judge the entries of some of New York's finest homemakers who will demonstrate their skills on everything from canning to refreshments for a party, plus the highlight of this year's contest, Austrian cooking.

More fine chefs in the Food Demonstration Kitchen are ready to show their techniques for quick and easy recipes, as well as international specialties.

Pulling away from the delicious aroma of food for a second, we hear music coming from the auditorium. It is Carleton James at the Wurlitzer practicing to accompany Fair audiences as they sing old favorite tunes. Following the sing-along each evening, Mr. James will be playing for a silent movie comedy that will coax laughter from the audience. Short films will also be shown.

Passing the Home Arts and Crafts Department, we see the handiwork of New York Staters on display, amid a sea of prize ribbons. Here, too, equipment is set up for pottery, weaving, chair caning and refinishing demonstrations.

The Senior Citizens Center also has its arts and crafts on display, and there is a chance to pick up fine gifts at their handiwork sale. Proving "you're only as old as you feel," The Senior Citizens Center is sponsoring a round and square dance on Saturday, August 31.

Photography and Art

For people who like cameras, there is an exhibit of photography by famed American photographer, Ansel Adams, and the art lover will find a bounty of attractions in the slides of contemporary arts and crafts shown as part of the art exhibition. The young set also gets into the act, with the Youth Art Festival displaying the works of students from Nassau and Suffolk Counties. But if you like art, let's continue our tour, for just outside the Art and Home Center in the Empire Court, a sculpture exhibit awaits those who wander its way.

Now organ music can be heard again. This time we find it's Luella Wickham getting ready to accompany the three fashion shows in the auditorium during Fair Week. These shows include young 4-H'ers as well as professional fashion models.

More entertainment is on the agenda for the young set (and adults too), for the Auburn Children's Theater will be back for its seventh year with a puppet show and live play. Also the New York State Spelling Bee finals will be held on August 27.

Fantasy Land provides a place for the youngsters to test their creative abilities with art materials and other objects, all under the supervision of art teachers and Campfire Girls. For those too small for Fantasy Land, the place to go is the Child Care Center, State Fair's answer to the perfect babysitter.

When the Fairgoer grows weary, the Cooperative Extension Exhibit, "Seating and Chairs," will provide an oasis. As you test their chairs, you can rest your tired feet and at the same time become better informed on how to buy chairs.

For teens looking toward the future as homemakers, the Women's Program of the Department of Commerce "Salutes Smart Shopping Teeners" in a circus motif, complete with blow-up photographs from top teens in New York State on their shopping habits.

Women's Day this year is Wednesday, August 28, and opens with a morning panel discussion moderated by Miss Marjorie Smith, Dean of Women at Syracuse University. The topic is "The Youth Quake: Adults, What We Think – Youth, What We Feel."

The luncheon following the discussion will be highlighted by guest speaker, Miss Roslyn McDonald, Deputy Commissioner and Director of Planning and Research for the New York State Division For Youth. Awarding of prizes for the Community Service Awards Contest will also take place, as women of the State recognize outstanding service to community needs.

Finally, there is the Hall of Health located just behind the Dairy Building. Here free health tests are given for diabetes, obesity, blood pressure, pulmonary function and glaucoma plus a chest X-ray and electrocardiogram.

All this can be enjoyed as part of the Art and Home Center when the New York State Fair swings wide its gates on Tuesday, August 27, and keeps them open through Labor Day, September 2, in Syracuse.

LUNA MOTH

by Fern Berry

I saw a fairy flying
In a pale green silken gown;
I thought she was a Fairy Queen
Until she floated down.

Then I saw this lovely creature
In her gown of silken froth,
Was not a Fairy Queen
But a lovely Luna moth.

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Photo: Reynolds Metals Co.

Who doesn't enjoy a picnic where the food is plentiful and delicious! The Peach Dessert Cake shown here is made from your best shortcake dough, topped with peach halves which were dipped in light cream and sugar before baking.

LET'S EAT OUTDOORS

by Alberta Shackelton

WHY DOES food cooked and eaten in the open always seem to taste better than when prepared and served inside? The tantalizing fragrance of outdoor cooking, the special flavor of foods cooked over glowing coals, and the fun of watching and visiting while the food cooks may be the answer. Even a picnic with food prepared in the kitchen and carried to the yard, beach, or park has special appeal.

Be sure the meal you plan for outdoor eating supplies the basics for a good meal and includes at least one hot food. Charcoal grilled steak or ground meat patties, frankfurters, and barbecued chicken are first meat choices for many, but don't forget that pork cooked over the coals is delicious too — ham slices, pork chops or steak.

No matter what the meat choice, my family thinks no outdoor meal complete without homemade Boston Baked Beans. Serve fresh vegetables on a relish tray or in a tossed salad. Or why not cook over the coals some of the vegetables so abundant right now?

Italian or French bread sliced, buttered (plain or herbed), and foiled will be ready to warm on back of the grill. A chilled drink is always welcome, in addition to a hot beverage and milk for the children. Fresh fruits on trays or dressed up in a Watermelon Boat and cookies, brownies, or squares of flat loaf cake complete the meal.

GRILLED STEAK

For tender, juicy and flavorful eating, choose steaks from high quality beef grade, as USDA **Choice.** Some cuts of USDA **Good** grade can be grilled, but will be less juicy and flavorful because they have fewer flecks of fat within the lean. Porterhouse, T-Bone and Sirloin, or individual steaks are perfect for a cookout.

Some outdoor cooks like to buy chuck steak of good grade and use one of the commercial tenderizers before grilling. Steaks should be cut at least 1 inch thick, allowing ½ to 1 pound per person. Remove meat from refrigerator an hour before grilling so it will be at room temperature.

To grill: Slash fat edges at intervals to keep steak flat. Place on greased grill or in folding wire broiler and grill 3 to 5 inches from glowing coals, the latter for thick or well-done steak. Medium-done steak will require approximately 14 to 18 minutes of total grilling time. Broil second side not as long as the first and turn only once. To test for desired doneness, cut near bone with sharp knife and note color. Meat may be salted as each side is browned or after grilling is completed.

BARBECUED CHICKEN
(Cornell Style)

1 egg
1 cup cooking oil
2 cups cider vinegar
3 tablespoons salt
1 tablespoon poultry seasoning
1 teaspoon pepper
10 broiler halves (about 1 pound each)

Beat egg, add oil and beat again. Add other ingredients and stir. Recipe may be varied to suit individual tastes. Leftover sauce may be stored in a covered glass jar in refrigerator for several weeks.

Place broiler halves on grill or in barbecue racks over hot fire after flame is gone. Baste chicken with sauce, using a fiber brush. Turn halves with a long handled fork every 5 to 10 minutes, depending on heat from fire; baste chicken at each turning. Basting should be light at first and heavy

(Continued on next page)

near the end of cooking period. Cook about an hour, depending on amount of heat and size of broiler. To test for doneness, pull wing away from body. If meat in this area splits easily and there is no red color at the joint, chicken is done. Barbecued chicken needs to be well done to be tasty.

BOSTON BAKED BEANS

2 pounds small pea beans
¾ pound salt pork
¾ cup sugar
1 tablespoon salt
½ cup molasses
½ cup leftover chopped, cooked ham (if desired)
Boiling water

Wash beans, cover with cold water and soak overnight. Drain, cover with fresh water, simmer until skins burst, and drain. Scald pork, remove ½ inch slice and put in bottom of large bean pot. Cut through rind of remaining piece every ½ inch, making cuts ½ inch deep. Put beans in pot, layering with ham if used, and bury pork in beans with rind exposed.

Mix sugar, salt and molasses with 1 cup boiling water and pour over beans; then add enough boiling water to cover beans. Bake 6 to 8 hours in slow oven (250° to 275°), adding water as necessary to cover beans; uncover during last hour of cooking so rind will become brown and crisp. Serves about 20. Make day ahead and reheat; freeze leftovers.

VEGETABLES COOKED OVER COALS

Practically all vegetables can be prepared for cooking as usual, sealed in foil packages either alone or in combinations, and cooked on outdoor grill over medium fire. Be sure to tightly close package by sealing foil with double folds and turning ends up so juices cannot leak out. Shake packages on grill occasionally so vegetables cook evenly and do not scorch.

Whole Onions: Rinse, leave skins on medium to large white or yellow onions, and place each on square of heavy duty foil. Bring foil up over onions and twist together at top. Cool 40 to 50 minutes or until soft to touch. Slip out of skins and season.

Zucchini, Tomatoes and Onions: Combine sliced zucchini, quartered peeled tomatoes, and thinly sliced onions on large square of heavy foil. Season with salt, pepper and basil, if desired, and dot with butter. Seal and cook about 30 minutes.

Whole Corn: Husk corn and remove all silk. Place each ear on generous piece of heavy foil and brush with butter and salt and sprinkle with a little sugar. Wrap foil around ears and twist ends. Cook about 20 minutes.

New Potatoes: Place several scrubbed small new potatoes on good sized square of heavy foil. Add 2 to 3 tablespoons water and pat of butter. Seal to form tight package and cook about 50 minutes, or until done.

WATERMELON BOAT

Cut off top of large watermelon lengthwise and a thin slice off the base, so the melon will stand without tipping. With a sharp knife, cut top edge of melon in large scallops or in saw-tooth fashion. Using a melon-ball scoop or measuring teaspoon, scoop out melon into balls, leaving about a 1-inch shell.

Combine watermelon balls with balls from cantaloupe, honeydew melon, blueberries, fresh peach cuts, pineapple, or green seedless grapes. Use about two other fruits in addition to the watermelon. Just before serving, fill watermelon boat with fruit mixture and garnish with scoops of sherbet and mint sprigs if desired.

BROWNIES

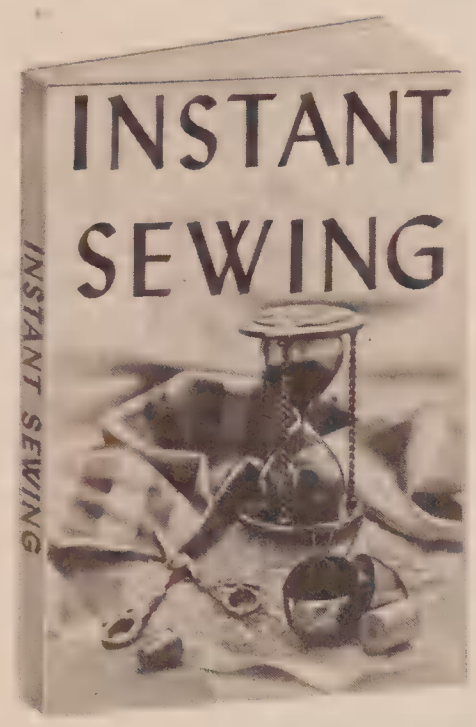
⅓ cup cooking oil
2 squares unsweetened chocolate
1 cup sugar
2 eggs
1 teaspoon vanilla
⅔ cup all-purpose flour
1 teaspoon baking powder
¼ teaspoon salt
½ cup coarsely chopped nuts

Combine oil and chocolate and stir over low heat until chocolate is melted. Beat in the sugar and then eggs, one at a time. Stir in vanilla and mix well. Sift together and stir in flour, baking powder and salt; mix well and stir in nuts.

Place in a greased 8×8×2-inch pan, smoothing over top lightly. Bake in a moderate oven (350°) about 25 minutes or until they test done. Do not overbake. Cool in pan. Makes 16 to 20 brownies.

CITRUS PUNCH

Reconstitute one can each of frozen orange juice concentrate, lemonade concentrate, and limeade concentrate with gingerale (instead of water), in the amounts directed on labels. Add 1 pint cranberry juice cocktail. Serves about 15.



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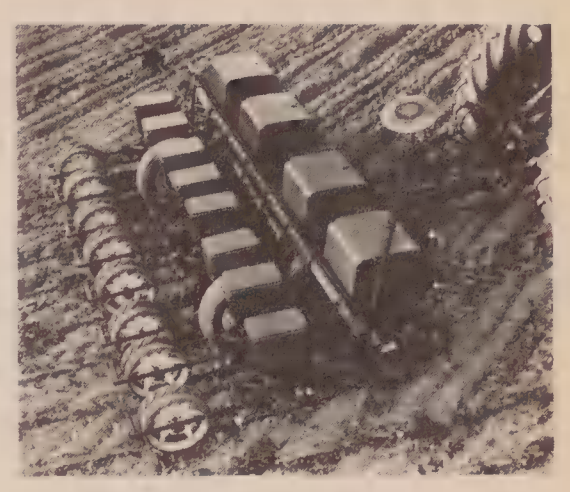
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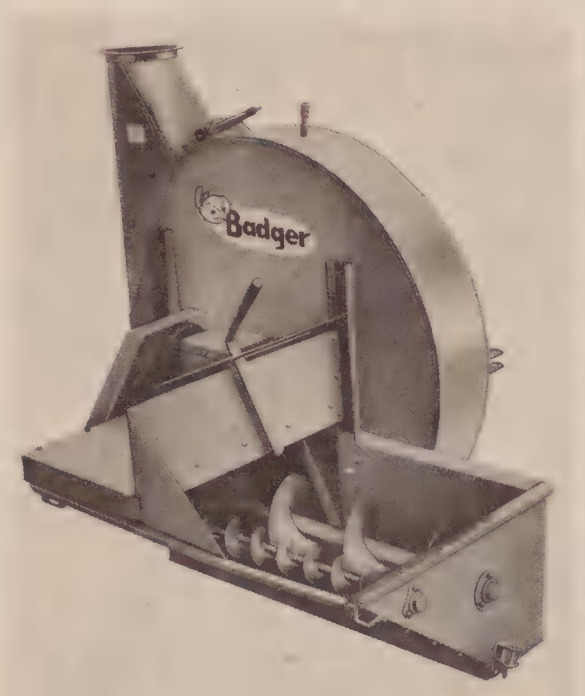
A convertible planter that enables farmers to make row width changes without purchasing an additional planter has been announced by Massey-Ferguson Inc. The new MF 468 pull-type drill planter converts from 40-inch to 30-inch, and even to 20-inch row spacings.



Typical of the tractor lineups you can see at Empire Farm Days is the David Brown roster shown here. Among the advanced features offered by David Brown are Selectamatic Hydraulic System, and Traction Control . . . whereby the implement's weight is transferred to the tractor rear wheels for greater traction. A number of important safety features round out the list of innovations.

The Patz Company, Pound, Wisconsin, now offers a major improvement in the design of its straight line cattle feeder flites. New flites employ an efficient, high-capacity carrier rod to increase loading capacity of each flite. This allows operator to feed more cattle with more feed per foot of bunk. All types of feed, including haylage, are moved around the bunk smoothly and evenly, without sifting or separation.





A big capacity "tall-silo" forage blower is being marketed by Badger Northland of Kaukauna, Wisconsin. Its 54-inch housing encloses a special cupped paddle fan which concentrates flow into a high-velocity stream. A louvered air intake eliminates the power-robbing vacuum that normally occurs after the paddles pass the throat opening. This, plus the adjustable shear bar, reduces material carryover . . . increases blower efficiency, and prevents hair-pinning and buildup of material in the throat.



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You can get a copy of this beautifully-printed and bound book in album form, illustrated by many old-time pictures, by sending $6.25 (New York State tax included) post office money order or personal check to American Agriculturist, Book Dept., Savings Bank Building, Ithaca, N.Y. 14850.



DIAGNOSE YOUR PLANT PROBLEMS

by Nenëtzin White

I feel that plant problems caused by insects and disease are reasonably easy to diagnose. You may not agree, and perhaps I can be of some help. It is the non-parasitic plant problems that are much more difficult to diagnose. For these, I can at least make you aware of some factors that can cause trouble.

Insects usually damage the foliage and/or stems. If you can see the culprit with the naked eye, you can describe it and buy material known to kill that particular pest. If nothing can be seen, get out a powerful magnifying glass and go over the plant. Mites are often very hard to see; shake the foliage (especially evergreens) over a white sheet of paper, and use your glass or a microscope if one is available.

Fungi, mildew, black spot, etc., often coat the leaves, or the plant will be discolored or wilted. A wet rainy season can cause this and possibly lack of aeration (weeds or heavy foliage around the plant). A good description of the plant and its surroundings will usually get you the proper fungicide at your garden store.

Now for the non-parasitic plant problems which are far more difficult to classify. I hope you will become a good detective, and you will also be more aware of various plant difficulties.

Soil compaction – This can occur when a plant is moved from a sandy or peaty soil to heavy clay, or when soil around plants becomes compacted by tramping, rains, lack of cultivation, or layers of heavy leaves. The compaction interrupts the normal balance of oxygen in the soil, and the plants will show a progressive decline over a period of years. For a valuable tree, compressed air and fertilizer can be introduced into the soil to break up the hard compaction and to feed it at the same time.

Grade changes will also cause the same symptoms mentioned above, and dry wells should be built around established trees. Heavy sodding around trees is not advisable. A circle around the tree, edged so mowing is easy, is far better.

Toxic materials – Spray materials can cause a variety of damage. Sulphur will damage or defoliate some viburnums, and high temperatures increase damage from sulphur. Malathion may damage Sargent Juniper or mottle the leaves of Sweet Gum and roses. Low temperatures and damp weather can increase the possibility of damage from copper sprays.

Herbicides – Selective weed killers such as 2,4-D will kill practically any broad-leafed plant. The foliage will twist, and the plant can be killed. Use herbicides with caution and watch wind drift.

Industrial smoke – Sulphur dioxide can cause severe plant damage. The discoloration is usually brownish-red to red on evergreens and brownish-red to yellow on deciduous materials.

Gas damage can cause wilting or browning of foliage, and the bark can turn black. The commonest cause is leaks from underground lines. If in doubt, check with your utility firm.

Lightning usually causes loosening of bark and perhaps shattering of trunk tissues. If there is enough tree left to work with, clean out dead tissues and slivers, disinfect the exposed wood with alcohol, and cover with a good tree paint.

Girdling of roots causes growth decline in perhaps only one or two large branches of a tree. These branches will show early fall color, or perhaps die over a period of a few weeks. Frequently, it is caused by poor planting when roots were twisted and jammed into too small a hole.

As the plant and roots grew, the interlocking roots also grew. Eventually some of these roots cut off the circulation of other roots, much as a rubber band around your finger would do. Often these girdling roots may be seen or easily found near the surface. If you are suspicious of girdling, call in an arborist or nurseryman and ask his advice. Often simply cutting the encircling root can alleviate the situation.

Root Girdling by borers, mice, rabbits or woodchucks cause the same symptoms as above. Removal of the bark completely around the tree is sure death. With partial girdling, cut back the top in proportion to the girdling and cover with a good tree wound paint. Protect trunks of new trees with tree wrap.

Low temperature injury is most often found on plants that are on the verge of hardiness. Try to incorporate these plants in group plantings, so the winter sun will be cut down. Wet, soggy soil is an additional hazard. Try putting semi-hardy or tender plants on the north or east side of your home. There they will miss the often fatal winter sun and our prevailing bitter southwestern winds.

This article is not meant to make you an expert in plant problems, but since we all have a little of the Sherlock Holmes in us, why not try using your knowledge to determine just what is wrong when a plant is not doing well.

HANDY HELPS



Vertical Chain Gate — Gates of this type are safer than barbed wire ones for cattle unused to an electric fencer. Load tighteners on each chain allow the slack to be taken up, and the vertical chains keep the others separated and in order for hooking.



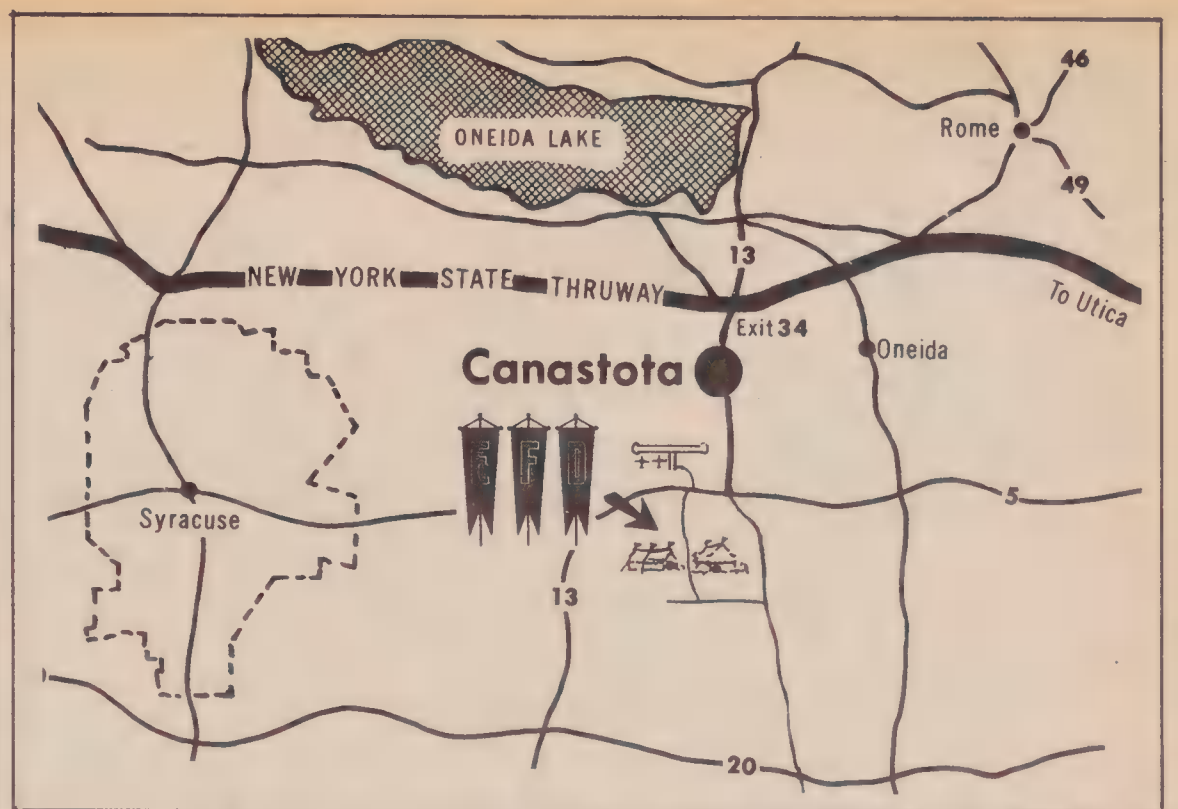
Non-Skid Steps — A very coarse aggregate was used for these steps, which lead into the milking parlor, and a rake was used to put wavy lines in the aggregate when smoothing. After the concrete was tacky, it was flushed with hosed water to leave the coarse material exposed.



Iron Pipe Sawhorses — A pair of sawhorses welded from iron pipe are especially handy for machinery repair when welding is necessary or heavy weights have to be supported. To make a stronger joint, the ends of the pipes were flattened at all the joints and welded lengthwise to the pipe.



Versatile — This wagon can be used for grain, ear corn, baled or chopped hay, or silage. Slat sideboards can be lifted off and a tight box used. The divided and hinged front-end-gate is handy for unloading bales into an elevator. The tailgate can be swung out and a load of silage emptied. A pipe brace across the top keeps sides from spreading.



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AUGUST 6, 7, 8, 1968

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Ed Eastman's Page

HOW THEY DID IT

For well over a hundred years it was not safe for the New England farmer to go into his fields without his musket. It was war with the Indians at first, then with the French and Indians, and finally with the British in the Revolution and in the War of 1812. The New England climate was bitter. The soil was thin, and sickness . . . with little means to control or cure it, was always on the march.

Yet with all the odds against him, the New Englander (with the help of the pioneers of New York and New Jersey) conquered his enemies, cleared the country, and led the way to the settlement of all northern United States from the Atlantic to the Pacific.

New England commerce combined with the manufactories made the Yankees the most remarkable traders and merchants of all history. Their ships sailed the seven seas. Politically, New England was famous for its leaders. To name a few, there was the Adams family, two of whom became presidents. Then there was John Marshall, the great chief justice, Daniel Webster, orator and statesman, Benjamin Franklin, scientist and statesman, and scores of others.

In literature, New England will be forever famous because of William Cullen Bryant, Prescott the historian, Nathaniel Hawthorne, Henry Wadsworth Longfellow, John Greenleaf Whittier, Oliver Wendell Holmes, and many more.

In education, New England led all others in its schools and colleges.

How did the Yankees do so much with so little? They had a set of principles which someone has called the New England Idea, covered by two words, reverence and respect:

Reverence for God
Reverence for man
Reverence for the sanctity of the home
Respect for education
Respect for law
Respect for work

In the next several issues I will discuss each one of these principles separately. Why? Because America is now in a bad way . . . on the road to chaos and ruin, and unless we can do something to increase reverence and respect for the qualities of character and spirit, this nation will go the way other great nations of history have gone.

Let's start with:

RESPECT FOR LAW

We all have laws we don't like. Personally I think there are too many laws, **but** what is the alternative? Without rules in the home and law no one would be safe anywhere, nor would his property. Look how quickly looting starts when the law begins to break down in the riots. The belief on the part of some young people that "if I don't like a law, I don't have to obey it," is the beginning of the end for any country. No matter what you may think of the draft, it is the law of the land. Therefore, tearing up draft cards or encouraging others to do it is a crime. So is the so-called civil disobedience, whose leaders openly say they will defy the law. We need officers . . . and these officers need our support . . . who will enforce the laws without fear or favor. And we need courts that will punish disobedience of law and send the lawbreakers to jail.

Disobedience to law and lack of respect for it start in the home. Make only a few rules, but sternly enforce those few. Start when the child is very young.

"Train up a child in the way he should go and when he is old he will not depart from it."

On this page in the next issue, I will discuss reverence for the sanctity of the home. If you don't expect to have an answer, I will be glad to have your ideas.

IF FLIES TOOK OVER

Do you remember when your mother cut old flour sacks into strips, tied them to sticks, then with each member of the family armed with these fly swatters, you opened the screen doors and chased the flies out? No matter how good a job you did there would always be one or two left to make life miserable for you if you tried to get a few minutes sleep?

A pair of flies, if unchecked, can produce 191,010,000,000,000,000,000 (I'll bet you can't read this) offspring from April to August. According to the Cooperative Extension Service of New York State College, that number of flies (if all lived) could cover the earth forty-seven feet deep. This means that without constant warfare insects would soon take over the world. Not only are flies an aggravating nuisance that spread disease, they cost stockmen millions of dollars annually.

Fortunately, scientists have come up with some effective weapons in the war against flies. The first step is to get rid of them before they start to multiply. That means thorough sanitation about the buildings, like the cleaning of calf and bull pens, daily cleaning of drops, and avoiding all wet accumulation of feed, silage, and straw.

The second step in the control of flies is the use of the new insecticides both in the buildings and on the animals themselves. A phone call to your county extension office will bring you exact information on how to do this.

HE TRAVELED ON THE SAME TRAIN

Mr. Arthur E. Wedge writes: "I traveled the same train with you. I read your book, 'Journey to Day Before Yesterday,' and I lived many of those years of those glorious days when happiness was not brought about by the hustle and bustle of these modern times. I heartily recommend your book to anyone who is interested in the days of long ago."

I have asked many of my friends if they would like to take a train ride back to Day before Yesterday. In a manner of speaking that is just what you can do with the book, "Journey to Day Before Yesterday." It takes you back to those long-gone days and after you have had a pleasant, happy visit, it brings you back to today.

To get a copy write American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York. The price is $6.25 (New York State tax included).

BEST TIME TO MILK

Ever since I can remember I have heard arguments about the right time to milk.

Some dairymen claim that the most production is secured by milking three times a day. That is usually right, but unless a high-producing cow is on test, the increased production does not pay for the extra labor involved.

Some dairymen insist that their cows must be milked at exactly the same time night and morning. For example, they believe that if you milk at five o'clock in the morning, you must milk at five o'clock in the evening. Experiments have shown that while there may be some increase in production by exact regularity, if the variation is not off too far, that is, if there is not a long time between milkings, small variations do not make much difference in production – not enough to pay for the inconvenience of milking exactly on time.

What do you think?

LET'S KEEP IT NICE

There are now more non-farmers in many country communities than there are farmers. This raises the questions of air and water pollution, garbage and other problems when people live too closely together.

It is becoming increasingly important that people interested in maintaining a good country community do some thinking and planning immediately.

The problems are mutual to both farmers and non-farmers, therefore, the representatives of each should work together.

How about raising the question in your local organizations like the Grange, the farm bureau, farm cooperatives, church, lunch clubs like Rotary and Kiwanis, young people's organizations, parent-teacher associations . . . any rural group interested in keeping your community a good place to live?

EASTMAN'S CHESTNUT REPAIRING HEAVEN

An artist was employed to retouch a large painting in an old church. He rendered a bill for $100.00.

The church trustees, however, required an itemized bill. So the following bill was duly presented and paid:

Adjusting the stars	$ 2.06
Brightening the flames of hell	.60
Cleaning moon	5.10
Correcting ten commandments	7.10
Cleaning Balaam's donkey	5.06
Decorating Noah's Ark	6.50
Embellishing Pilate	3.02
Enlarging Goliath's head	2.03
Extending Saul's leg	2.05
Mending shirt of prodigal son	.35
Painting silver dollar on poor box	.80
Putting earrings in Sarah's ears	30.00
Putting a new tail on the devil	1.50
New tail on St. Peter's rooster	4.18
Rebordering robes of Herod	1.43
Removing soot from Vesuvius	3.12
Restoring lost souls	20.00
Renewing heaven	1.00
Taking spots off Tobias	1.00
Washing feet of high priest	3.10
Total	$100.00

SERVICE BUREAU

For The Northeast Farmer

by M. A. Parsons

WIGS

"I received a card in the mail saying I won an expensive wig, but I should let them know the style setting I wanted. I would have to pay for the setting and the form to hold it.

"As requested, I sent $11.75 to Charles Wig Styling Club in Philadelphia over six weeks ago and have heard nothing further. Do you know anything about this outfit?"

Our subscriber would have been no happier had she received the wig. Many who did were horrified at its appearance. One winner said the wig was suitable "only for a scarecrow costume on Halloween." They were described by their purchasers as looking like a "shaggy dog" or "dead string."

Elliott Nathaniel Scott, trading as Charles Wig Styling Club and under other names, was convicted on ten counts of mail fraud on March 13, 1968. At this writing, he has not yet been sentenced, but he already has new trade names and is selling again – both through newspaper advertising and by direct mail.

The Philadelphia Better Business Bureau found that Scott used over 35 trade styles and more than half a dozen addresses in peddling his wigs by mail. The Bureau received over a thousand complaints. The Postal Inspector, whose investigation of Scott's operation covered many months, reported that the Post Office Department received between four and five thousand complaints including those received from the Philadelphia Bureau.

According to the testimony, the cost of the styling sometimes ran as high as $21, yet according to a U.S. Attorney the wigs cost Scott between $.90 and $1.10.

DEBT POOLING

A decision of Supreme Court, New York County, handed down in June, ended a debt-pooling scheme by a Rhode Island firm whose promoters zeroed in on the poor and those with language difficulties in the ghetto areas of New York City.

The decision restrained Gerald Grossman of Bridgeport, Connecticut, and Valentine Renzulli of Pawcatuck-Westerly, Rhode Island, who do business as Financial Adjusters' Company at the Rhode Island address, from conducting their debt-pooling operation in New York State.

"Debt pooling, outlawed in New York State since 1956, calls for a debtor to turn over his income to such promoters who pay his debts out of the income, or promise to do so, for which arrangement the debtor is saddled with high interest charges, service charges, and other costs," the Attorney General said.

This plan almost never is carried to fruition. In many cases, the creditors refuse to accept the plan or the debtor finds it impossible to live with. However, the scheme netted its promoters more than $15,000 between March 13 and April 26.

The Attorney General stated that the Bureau of Consumer Frauds and Protection of his office is continuing an inquiry to determine whether other out of state debt-pooling concerns are attempting to contact residents. If you are a resident of New York State and you are contacted by a debt-pooling firm, contact the Bureau of Consumer Frauds, 80 Centre Street, New York, New York.

NO ANSWER

"On October 9 I ordered five shirts at $5.95 each from Morgan Bowling Apparel in Chicago and I sent a check to cover. When we received them about two months later, one had a hole in the front and the flocking on the back was poorly done, so I returned it immediately, requesting a replacement.

"I have written three times since and sent a certified letter because we have a tournament coming up, but have had no answer. I tried to phone them but the operator could find no listing for them. Could you help us?"

We also wrote Morgan Bowling Apparel twice without an answer. Our letters were not returned so we assume they are still in business.

CAN YOU HELP?

Mr. E. H. Decker, 432-55 St., Brooklyn, N.Y. 11220, would like the words to the following old songs: "Rocking All of My Babies to Sleep," and "My House Carpenter."

* * *

Mrs. Helene Noble, 3224 Grand Concourse, Bronx, N.Y. 10458, is looking for an old-fashioned "soap saver," which looked like the sieve of a large strainer.

* * *

Mr. Howard D. Coleman, R.F.D. 3, Remsen, N.Y. 13438, would like to buy a copy of "Atlas of Oneida County" New York, compiled and published by D. G. Beers & Co., 1874; also a copy published in 1907.

* * *

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

HELP
WHEN NEEDED

These folks received larger payments because they carried several North American policies. With today's high costs you need a combination of policies to provide enough protection in time of need. You may find a friend's name in this list of claims recently paid.

Vincent F. Hilligas, Friendship, N.Y.$ 648.15
Tripped by calf—broke ankle
Kenneth Burr, Houghton, N.Y. 1630.00
Tractor accident—broke leg
Roger Cook, Dec'd, Deposit, N.Y. 3600.00
Driving tractor & struck by car—loss of life
Boris Hribar, Randolph, N.Y. 535.76
Auto accident—inj. head, ear
Walter Frazier, Freedom, N.Y. 488.56
Kicked by cow—internal injuries
Una Krotz, Ellicottville, N.Y. 602.78
Fell in barn—broke pelvis
Edwin Schumacher, West Valley, N.Y. 688.50
Slipped and fell—injured knee
Clara M. Mitchell, Moravia, N.Y. 567.89
Fell—inj. back, hip
Robert Waldron, Union Springs, N.Y. 106.36
Hit by cattle sling—inj. head
David Rowland, Genoa, N.Y. 570.51
Slipped and fell—inj. knee
Ellen Bogart, Sherman, N.Y. 404.40
Auta accident—inj hand, leg
Anthony Loewel, Jamestown, N.Y. 700.00
Hit in mouth by jack—broke teeth
Cosmo Scaccia, Fredonia, N.Y. 647.11
Auto accident—inj. ribs
Clarence Yancey, Afton, N.Y. 117.85
Thrown by bull—cut hand
Walter Irwin, Peru, N.Y. 363.04
Slipped getting on tractor—inj. shoulder
Herman Rabideau, Mooers Forks, N.Y. 243.19
Fell off platform—broke ribs
Stephen Warge, Dec'd, Dryden, N.Y. 1650.00
Fell from silo—loss of life
Wellington Wright, Preble, N.Y. 483.68
Slipped fell—broke arm
Edith Burnside, Bloomville, N.Y. 192.84
Crushed by cow—inj. ankle
Arnold Truscott, Delancey, N.Y. 119.99
Fell in silo—broke rib

Octavia DeCocker, Sidney Center, N.Y. $ 376.05
Slipped on wet grass—multi. bruises
Clifford Meyer, Springville, N.Y. 135.70
Wrench slipped—inj. elbow
Donald Hughey, Springville, N.Y. 1662.25
Auto accident—inj. back
Kenneth Eder, N. Collins, N.Y. 600.46
Log fell from truck—broke leg
Harris MacKenzie, LeRoy, N.Y. 1345.00
Fell off corn crib—concussion
William Sutton, Ashland, N.Y. 370.70
Auto accident—broke leg
Tom E. Lewis, Little Falls, N.Y. 1235.00
Fell—inj. back
Julie A. Widrick, Woodville, N.Y. 163.80
Fell from ladder—inj. head
William Weaver, Adams, N.Y. 757.43
Kicked by cow—inj. back
Ida M. Dening, Lowville, N.Y. 510.69
Caught hand between PTO lever & tractor chain
Robert Peterson, Lowville, N.Y. 626.74
Knocked down by heifer—inj. shoulder
Kathryn Arnold, Castorland, N.Y. 494.60
Slipped and fell—frac. wrist
John D. Cofield, Piffard, N.Y. 345.97
Slipped and fell—fract. leg
Frank Schulz, Lima, N.Y. 233.41
Caught by knife—fract. & cut finger
George Weisbrod, Canastota, N.Y. 280.55
Hoist on truck broke—injured back
Raymond Schepler, Hamlin, N.Y. 312.58
Tractor rolled—inj. lt. thigh
[illegible] Smith, Rochester, N.Y. 343.86
Fell—inj. back and ankle
Lolita Sullivan, Esperance, N.Y. 566.86
Fell—injured head and cuts
George Saltsman, Dec'd, Fort Plain, N.Y. 2290.00
Tractor accident—loss of life
Cora A. Sechler, Dec'd, Barker, N.Y. 3183.33
Auto accident—loss of life

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- **Medical Expenses.**
- **Weekly Income while in the Hospital and at Home.**
- **Loss of Life and Limb.**

Mary Ethel Johnson, Waterville, N.Y.$1330.00
Slipped & fell—frac. hip
George Newell, Skaneateles, N.Y. 234.79
Choked on meat—injured throat
Glenn Guptill, Nedrow, N.Y. 1610.00
Attacked by bull—inj. ribs, leg, knee
Caroline A. Chase, Dec'd, Canandaigua 5250.00
Auto accident—loss of life
Paul Maslyn, [illegible] Springs, N.Y. 610.64
Kicked by cow—fract. foot
[illegible]ben Gillespie, Pine Bush, N.Y. 134.36
Auto accident—injuries
Agnes Sadlowski, Albion, N.Y. 408.17
Fell—injured leg
Luther Hannum, Hannibal, N.Y. 112.00
Hit in face by pitch fork—broke tooth
Charles Spencer, Sandy Creek, N.Y. 300.00
Hit by piece of lumber—crushed hand
Donald Campbell, Cherry Valley, N.Y. .. 128.00
Cut with chain saw—inj. head
Everett Jester, Otego, N.Y. 204.89
Caught in jointer—inj. fingers
[illegible]land Pike, Gouverneur, N.Y. 237.84
Caught finger in machine
Kenneth Phelix, Hopkington, N.Y. 137.50
Moving silo unloader—injured back
Richard Sibbitts, Canton, N.Y. 119.86
Kicked by cow—bruised rt. leg
Friederike Beurer, Rock City Falls, N.Y. 320.00
Auto acc.—fract. collarbone, cuts & bruises
Leo Bouck, Jr., Sharon Springs, N.Y. 394.65
Kicked by cow—fract. rt. foot
Stanley P. Borst, Sharon Springs, N.Y. 234.28
Knocked down by cow—inj. arm & elbow
Louise Sherrer, Burdett, N.Y. 1222.84
Fell—fractured pelvis
William King, Savona, N.Y. 1940.31
Auto acc.—ruptured gall bladder, cut head

Victor F. Sick, Cohocton, N.Y.$ 811.05
Struck by cow—inj. back
John Donovan, Hornell, N.Y. 1087.88
Cut leg with axe
Arthur Rutledge, Callicoon, N.Y. 225.00
Slipped cleaning barn gutter—inj. back
Theodore Gehm, Berkshire, N.Y. 1162.86
Fell off tractor—frac. elbow
Aretha M. Ayres, Barton, N.Y. 719.15
Foreign body lodged internally
Mark Myers, Newfield, N.Y. 330.18
Riding bike hit by truck—fract. leg
Lawrence Keech, Dryden, N.Y. 647.44
Fell going into silo—inj. leg
Henry Van Gee, Palmyra, N.Y. 398.11
Slipped getting out of milk truck—inj. knee
Hazel Vanderwall, Palmyra, N.Y. 1600.00
Auto acc.—frac. leg, arm, toes, cut & bruises
Frank Bloom, Dundee, N.Y. 1434.62
Fell from ladder—frac. knee
Walter Wolfe, Granville Summit, Pa. 627.75
Log rolled on leg—broke ankle
Jeff Warner, Gillett, Pa. 131.40
Kicked by cow—inj. leg
Roger Luke, North East, Pa. 583.75
Caught in door—crushed finger
William P. Jones, Waymart, Pa. 579.99
Auto accident—broke rib
Thomas Cook, Newton, N.J. 990.00
Struck by mower bar—inj. ankle
Arthur H. Schanck, Dec'd, Belmar, N.J. 1450.00
Fell down stairs—loss of life
Louis Kiesling, Jr., Bordentown, N.J. 910.57
Fell from motorcycle—inj. shoulder
Ila Boyden, Cambridge, Vt. 1084.00
Slipped and fell—inj. back
Laroy Merrill, Randolph Center, Vt. 435.00
Thrown from truck—inj. back
William Cram, Weare, N.H. 205.71
Slipped off tractor—inj. back

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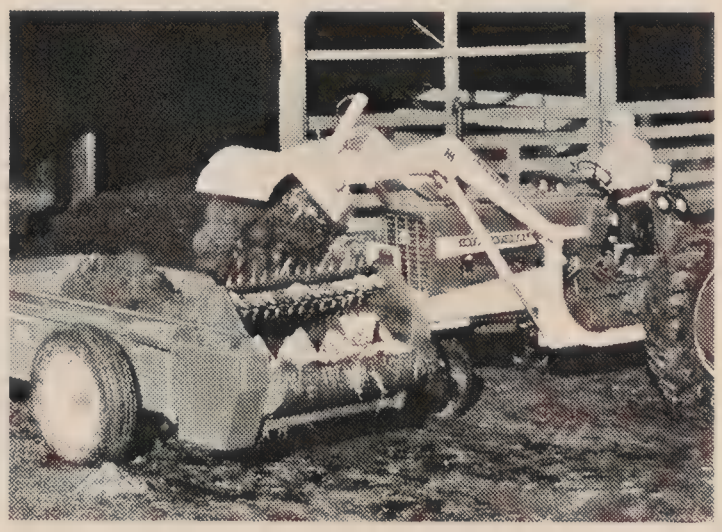
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American Agriculturist and the RURAL NEW YORKER

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Doc Mettler Comments On:

THE MISUSE OF CORTISONES

The author is a practicing veterinarian at Copake Falls, New York

THE LOCAL countryside seems different the day after Labor Day. There is a peaceful stillness to the air that hasn't been there since late May. With less traffic again it is easier for a veterinarian to meditate as he drives from call to call. None of us, farmers or veterinarians, ever gets enough time to just think quietly alone, or aloud in small groups discussing shared problems.

I can remember that as a boy I could daydream better riding a horse-drawn mower or cultivator than at any other time. I didn't have a feeling of guilt as I would had I just sat down doing nothing, but the horses knew what to do and all I had to do was mull over my then important thoughts. A father and son digging potatoes facing each other across two rows were able to discuss things that made a better understanding between young and old, or to talk over why the cows didn't milk well that fall.

Find Time

I know farmers today must spend time thinking alone and with their sons or others, though busy as they are I wonder when they find time. A man can't daydream while driving a self-propelled chopper the way he could a horse-drawn mower! But I'd like to suggest that you spend some time pondering this fall on the effect the indiscriminate use of the modern cortico-steroids (cortisone, prednisone, prednisalone, flumethazone, etc.) have on your livestock.

Aconite

Fifty years ago, we are told, every sick cow or horse got a dose of aconite, regardless of the cause of the disease. Forty years ago epsom salts was the popular cure-all, especially in cattle. As a student riding with a veterinarian, I recall that he had to contend with the fact that nearly every sick cow he saw had already been dosed with from one to five pounds of epsom salts.

In the early forties, sulfanilamide was the cure-all. Every sick cow got a little, usually not enough to do much good, but too often too much . . . enough to damage the kidneys and give misleading symptoms when the veterinarian was finally called. Twenty years ago it was penicillin, ten years ago pen-strep, and today the cortisones.

"Won't Hurt"

True, you can take the "cake" out of a cow's udder quicker and cheaper with a little prednisone than anything else going. If she happens to have acetonemia, you can cure her with prednisone or one of its stronger cousins. If she has stiff and sore joints, she'll walk easier with cortico-steriods. And if she doesn't have one of these things perhaps you think, "What's the difference, use it anyway, it can't hurt anything."

Or can it? We know that corti-co-steroids used when an animal has active or inactive infection in its system can cause the infection to spread. How many blown quarters have you had after using cortisones? If you haven't had any, you aren't using too much. A cow with a chronic pneumonia, infected uterus, abcess from hardware, or anything of this nature, will get much sicker if given any cortico-steroid without sufficient dosages of antibiotics at the same time.

The Lesson

Many of you have been warned of all this, or have learned it the hard way. Do you also know that continued use of the cortisones will cause the adrenal glands to shrink in size so that they can't produce the normal cortico-steroid hormones the body needs to counteract inflammation, infection, stress, etc?

Do you know that horses kept on continual doses of cortisones often end up as hopeless cripples with their joints nearly destroyed, and their whole systems so mixed up that they can't sweat, they lose weight, and appear to be twenty-five when they are only five years old? Do you know that cortisones given at the time of conception can cause monstros

(Continued on next page)



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Dates to Remember

Sept. 5-6 - Western New York Fat stock Show, Caledonia, N.Y.

Sept. 6-8 - 45th Annual Yorktown Grange Fair, Yorktown Heights, N.Y.

Sept. 8-12 - International Poultry Industry Exposition, Chicago, Ill.

Sept. 13-15 - Annual Meeting New York State Poultry Industry Coordinated Effort (SPICE), Holiday Inn, Saratoga Springs, N.Y.

Sept. 13-22 - Eastern States Exposition, West Springfield, Massachusetts.

Sept. 14 - New York Hereford Association Field Day, Scott Traxler Farm, Dansville, N.Y.

Sept. 14-16 - National Dairy Goat Show, New Mexico Fair, Albuquerque, N.M.

Sept. 19 - New York State Fruit Testing Cooperative Association Inc. annual meeting, Geneva, N.Y.

Sept. 19 - Vermont Feed Dealers and Manufacturers Association annual meeting, University of Vermont, Burlington, Vt.

Sept. 21-29 - New Jersey State-long Horseback Trail Ride, sponsored by New Jersey Departments of Agriculture and Conservation and Economic Development, starting noon Saturday, September 21.

Sept. 23-27 - Pennsylvania All-American Dairy Show, Farm Show Building, Harrisburg, Pa.

Sept. 24 - Pennsylvania State Black and White Show, Harrisburg, Pa.

Sept. 25 - 7th Annual Broiler Housing Seminar, University of Delaware Substation, Georgetown, Del.

Oct. 5 - New York State Sale Classic, Sale Pavilion, Canandaigua Fairgrounds, Canandaigua, N.Y.

Oct. 5-6 - Fall Foliage Festival, Warner, N.H.

Oct. 6-12 - National 4-H Week.

Oct. 6-12 - National Fire Prevention Week.

Oct. 8-10 - Neppco Exposition, Farm Show Building, Harrisburg, Pa.

Oct. 12 - New England Angus Association Fall Sale and Sweepstake, Whitney Lane Farms, Harvard, Mass.

Oct. 13-17 - National Association of County Agricultural Agents annual meeting, Louisville, Ky.

Oct. 19 - Agricultural Sciences Careers Day, University of Delaware, Dover, Del.

BRUSH CONTROL

Our Defense Department's need for 2, 4, 5-T herbicide to defoliate and kill jungle growth in Vietnam has required much of the domestic production of this chemical. To assure an uninterrupted brush control program, Amchem Products, Inc., Ambler, Pa., felt an obligation to try to find the best possible material to replace 2,4,5-T.

A 2,4-DP material proved to be the chemical; this new product is called Brushkiller 170. It is used for stump, frill, basal, modified basal, or foliage spray in water, oil-water, or oil carriers.

Mettler

(Continued from page 4)

ities (freaks) at birth?

The above is all known fact, of which the manufacturers of the various drugs have knowledge, and of which they expect the user to be aware. Ponder on this, however; what effect do large doses of cortisones have on the breeding of your cows and horses? Do cows you are giving cortisones to come in heat regularly and when they do, do they conceive and carry to term? How about all the chronic uterine infections we have?

Ask any inseminator how many cows have doughy uteri, heavy cervixes, and show other signs of infection? How much of this is caused by unnecessary over-use of cortisones?

Breeding Problems

No, I don't have the slightest idea if there is any connection between the use of cortico-steroids and hard breeding, but it could be. Make a few notes on the cows you treat this winter and see if there is any connection. The only place to learn these things is on the farm.

In the meantime, don't use those high-powered drugs without your veterinarian's advice. Never give them unless there is specific reason, and then take temperatures first and if in doubt use antibiotics with them. As for injections and pills that contain cortisones for caked udder, what harm is a **little** cake?

I wonder what the popular cure-all will be in 1980. It probably will be even more potent than the cortico-steroids and more dangerous. By that time maybe we'll all be smarter and have more time to think these things over, with all the new labor-saving devices appearing on the farm market all the time. Who knows? It's something to think about!



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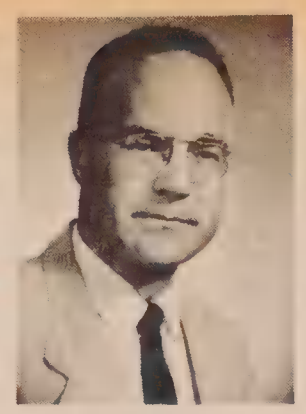
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EDITORIALS



by GORDON CONKLIN

GUN CONTROL

As the gun control controversy has raged, I've heard all kinds of numbers thrown around . . . and wondered just what was really going on.

For instance, "There are 20,000 people killed in the United States every year by guns!" The implication is that there are 20,000 **murders** each year involving the use of firearms, but let's look a bit deeper . . . using as a reference a publication prepared by the Library of Congress Legislative Reference Service, and entitled "Selected Statistics Relating to Firearms."

In 1966, there were 19,868 deaths caused by firearms in the U.S. (excluding war casualties). But only 6855 of these were homicides . . . 10,407 (half) were suicides, and 2606 were accidental. The only point I'm trying to make is that wilful murder by the use of firearms is actually at a lower level than many folks imply when making impassioned speeches on the subject. In fact, firearm homicides per 100,000 people in the U.S. in 1966 (3.5) was just under drownings per 100,000 people (3.6).

The death rate per 100,000 as a result of automobile accidents in 1966 was 27 . . . **eight times** the homicide-by-firearms rate.

For that same year, the handgun was used as a weapon in 44 percent of the murders committed in the U.S. . . . versus only seven percent by rifle, and nine percent by shotgun. New York State already requires the registration of all usable handguns, and I doubt if most rural people in any northeastern state would resist laws requiring such registration.

To require federal registration of all rifles and shotguns, though, seems unwarranted by the facts. It's the same general consideration as the one with pesticides . . . the benefit-risk equation . . . how much risk must be tolerated in order to receive the benefits from the use of a potentially-dangerous material or weapon?

STEP FORWARD

For umpty-ump years, it took legislative action in New York State to change definitions and standards of dairy products . . . a cumbersome and unrealistic process originally designed to improve the standards of animal industry, and later to fight the inroads of imitation dairy products. At long last, the law has been changed so that definitions and standards are now set by regulations developed by the Department of Agriculture and Markets.

This offers to the dairy industry far greater flexibility than has previously been the case . . . and the dairy industry should move to take advantage of it. For instance, there are a number of food additives that could immediately enhance the performance and consumer acceptability of dairy products. New product development should be stimulated by the fact that it will be simpler to get government approval of labels, contents, etc.

Furthermore, milk can be fortified with added milk solids to give more protein content . . . and even better taste. Protein is a far more salable product than butterfat in our overfed and calorie-conscious society. And dairymen should even consider that unmentionable of a few years ago . . . combining vegetable products with dairy products to tap new markets (a butter-oleo combination, for instance).

In an image-conscious world, we need to do some semantic face-lifting on some of our dairy products. Let's get away from the "skim milk" designation that implies the customer is being gypped, and go to "fat-free milk," or "lower fat milk." Up to now that "skim" handle had to be affixed to any milk from which any fat had been removed, even if some butterfat was left.

I have great confidence in the present regulatory people at the Department of Agriculture and Markets. By working with them, dairy industry people and dairymen have a golden opportunity to move the industry quickly in response to the ever-changing market demands of our time.

We've turned in the grain binder for a self-propelled combine . . . now let's get at it and harvest the crop!

NOSY OR NEEDED?

Before very many moons roll by, farmers will be asked to provide information for the 1969 U.S. Census of Agriculture.

It's planned this time to do the job entirely by mail, and to send forms of varying complexity to farmers of different income levels . . . a "short form" to those with gross incomes under $2500, and a longer form to the rest. Those with gross incomes over $10,000 . . . which includes the bulk of commercial farmers . . . will probably be asked to fill out special questionnaires.

There has been some recent ferment in Congress to sharply curtail the scope of the Census of Agriculture . . . or even to make changes that would in effect wipe it out. The basic reason cited is that the Census is an unwarranted invasion of privacy . . . and enforced by the power of law.

Over the years, I've personally consulted the Census figures hundreds of times in order to better understand farming and farmers, and to make more informed decisions. Census information is used at every turn in colleges of agriculture, and in agribusiness . . . without it, those serving farmers would feel like someone plowing at night without lights.

After comparing the pluses and minuses of the Census of Agriculture, I conclude that the benefits outweigh the drawbacks. It's my hope that, when the time comes, you'll help by providing the information asked for.

PAUSE THAT REFRESHES

Not long ago, I spent some time as an invalid, part of it in the hospital. It's an experience that has its plus side for any of us.

Some folks get to taking themselves so seriously that they think the world can't get along without them . . . but a stretch in the hospital proves otherwise. A bit more humility is one of the first fruits from what is in some respects a bitter tree.

Being broken upon the rack of physical torment is hard to take, but only there can we enter fully into the fellowship of pain. The silly and artificial barriers of exclusiveness erected by the human ego come down amidst this ageless fellowship . . . did you ever try to act high and mighty in a hospital nightgown? The still, sheet-shrouded form moving along the corridor on its wheeled stretcher reminds us all that death is the inexorable and ultimate equalizer.

And, perhaps most important of all, a hospital is a constructive place in a world that sometimes appears to be convulsed with madness. The overwhelming dedication here is to be helpful, to mend ailing bodies, to encourage each person to take up his bed and walk . . . cards from, and visits by friends aid the healing process. Amidst all the criticism of the failings of organized religion, I can never forget that it was people in church groups who conceived the idea of hospitals in the first place . . . and did something about it.

I'm convinced that we can . . . if we look . . . find larger dimensions of life wherever we go . . . ranging from the pinnacles of well-being to the valley of the shadow.

GREAT IRONY

One of the great ironies of our time is being played out on the stage of history. Our president was elected with such an overwhelming majority in large part because he successfully hung a "warmonger" tag on his opponent, and solemnly promised his countrymen that he would avoid a major land war on the Asian continent.

The betrayal of that promise by bloody involvement in a war not in the best interests of the U.S. has created another "first" for an American president . . . becoming almost a fugitive within his own country.

From the dizzying political heights to an unprecedented low . . . such is the irony that history will record about the proud Texan. And how differently would history's judgment have read if he had avoided his adventure into the bottomless quagmires of the Orient!

WHO GOES THERE?

Recently, I received a letter from a lady in Western New York complaining about the raw sewage being dumped into a creek running through her village, and asking for help in righting the situation. Unfortunately, she did not include her name . . . and therefore I couldn't respond to the letter. If you have written AA at one time or another and received no reply, it may well be you neglected to provide either your name or complete address.

The answer to the lady's problem, of course, is to work through the county health department . . . or go directly to the State Health Department if she feels it necessary. The residents of a number of villages have had to stop dumping raw sewage into creeks because of a clamp-down by the State Health Department . . . and I frankly feel that this move was overdue, and will undoubtedly be far more stringent in the future. As population intensity soars, we just have to revise the rules in such things as waste disposal, zoning, and natural resource use in general.

We do our best to provide helpful information to our readers, but when you write be sure you let us know who you are and where you live!

GUEST EDITORIAL

All of us have to live with priorities. It is an unpleasant responsibility, for so much needs doing and we wish we could do it all at once. But we cannot. To back one proposal means rejecting another. For every program that is launched, we can point to another need left unfilled. *(— Charles B. McCoy, President, E. I. duPont deNemours & Co., Inc.)*

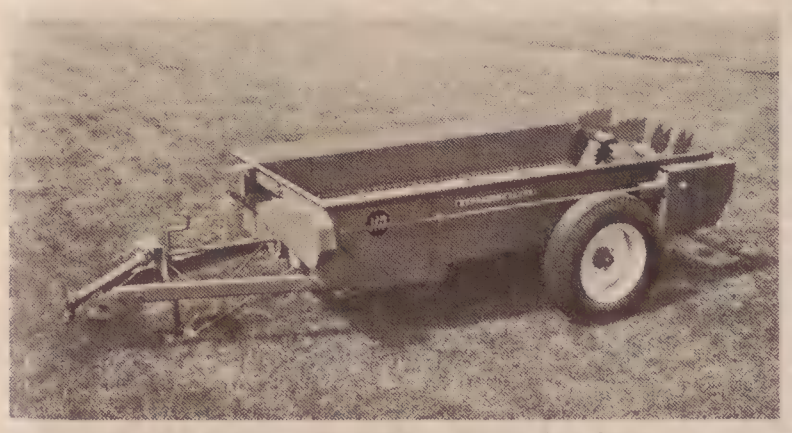
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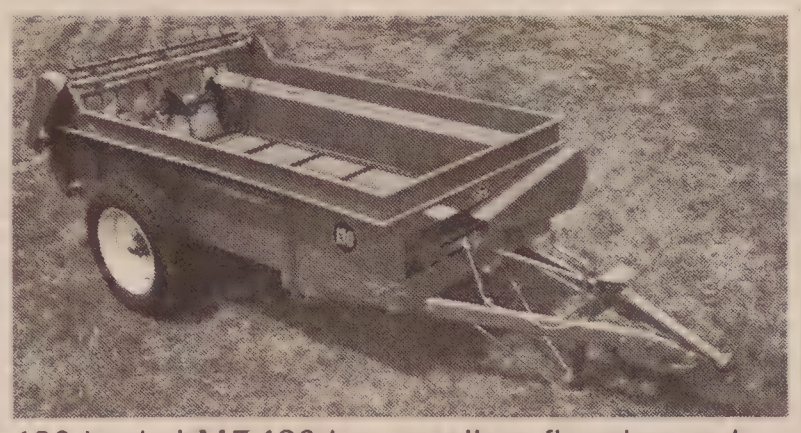
*Suggested retail list price for MF 110 less tires, FOB Des Moines, Iowa



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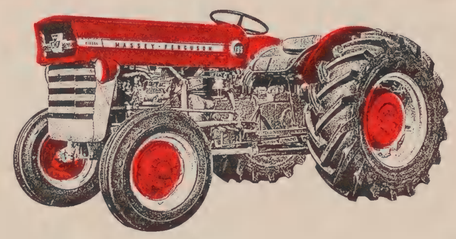
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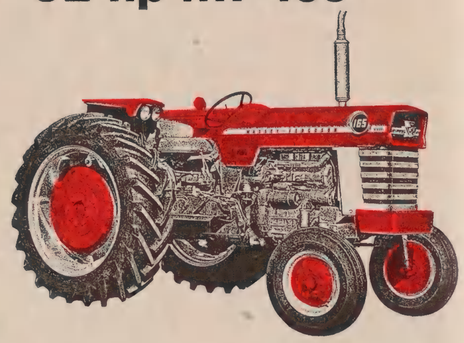
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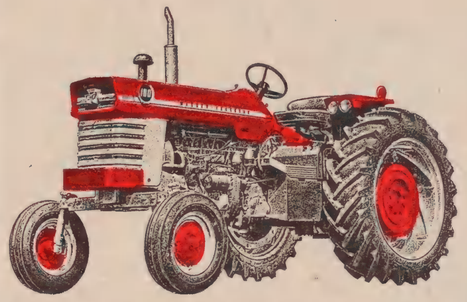
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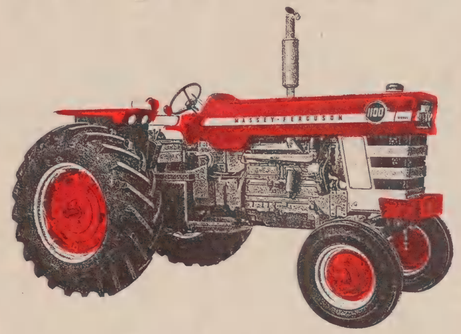
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94 hp MF 1100



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Let's Get The Most From

CORN SILAGE

L.R. Brown & R.D. Benson*

CORN SILAGE is "king of the forage crops" in the Northeast. Each year it assumes greater importance in the forage program for dairy cattle. Not only are more dairymen moving toward corn silage as the only forage, but an increasing number are using this program 365 days per year.

In general, the change to corn silage has been accompanied by higher and more profitable production. However, we have seen several cases of poor production and inefficient utilization of nutrients on corn silage feeding programs. Usually these were high-producing herds that had been on corn silage for several years.

These problems indicate that corn silage is not the perfect forage. No forage is perfect. Corn silage fits into the modern dairy farm extremely well, but it should not be expected to replace a forage program based on a variety of forages without making some adjustments. It is an excellent source of energy, but the dairyman is responsible not only for the energy needs of the cow but also for the protein, mineral, and vitamin requirements.

Protein Supplementation

The number one weakness of corn silage is low protein content. One common rule of thumb tells us that a dairy cow's total ration should average about 13 percent crude protein (dry basis). In practice this rule works very well in meeting the protein needs for each cow in the herd regardless of milk production. Since the ration is made up of forage and grain, let's consider the problem of selecting the proper protein percentage for the grain mix when the forage is corn silage.

The following table demonstrates the problem of providing adequate protein to cows at various levels of production when corn silage is the only forage. It is assumed that silage intake will be reduced somewhat at higher levels of production because of the amount of grain being fed. The grain fed will meet the energy requirements. Protein required is the percent protein needed in the grain to meet the needs for proteins under these conditions.

Milk Produced (lbs.)	Corn Silage (lbs.)	Grain Fed (lbs.)	Protein Required (%)
20	85	0	*
30	85	3	41
35	85	5	31
40	85	8	23
50	80	15	19
60	75	21	17
70	70	28	16
80	60	37	15
90	50	45	14

*Corn silage alone supplies enough energy, but these cows will be underfed on protein.

A common recommendation to make up for the low protein in corn silage is to feed a grain mix that contains a higher percentage of protein. A quick inspection of the above table tells us several things:

(1) No grain will meet the energy and protein needs for all cows in the herd on a corn silage program.

(2) Cows producing 70 pounds of milk or more will receive enough protein from a 16% grain mixture.

(3) Cows producing 50 pounds or more will receive enough protein from a 20% ration.

(4) Cows producing at lower levels will be underfed on protein on a 20% ration.

Some have advocated feeding more grain to meet the protein requirement. At first glance this appears to be an acceptable alternative; however, when this is done, protein is not in proper proportion to energy. This will cause lower digestibility and poorer efficiency of nutrient utilization. Therefore, one should feed enough protein to meet the cow's requirements without overfeeding energy. This balance will result in greater efficiency

Increase Protein in Silage?

From the above table, it would appear that the task of proper protein supplementation would be greatly simplified if the protein of the forage portion of the ration were somewhat higher. Of course, this is what many dairymen have done for years by feeding legumes with corn silage. Many dairymen will want to continue this practice. However, there are at least two other methods that have worked well to increase the protein content of corn silage.

The first is the feeding of a high-protein supplement such as soybean meal or a urea-containing supplement of 44% protein or more along with the corn silage. Dairymen are doing this in various ways, including blending into the auger, putting it on top of the silage in a self-unloading wagon, or feeding it to each cow individually in the stanchions. The following table demonstrates the effect of feeding each cow two pounds of soybean meal per day. (The two pounds has been substracted from the pounds of grain fed):

Milk Produced (lbs.)	Corn Silage (lbs.)	Grain Fed (lbs.)	Protein Required (%)
20	85	0	*
30	85	1	21
35	85	3	17
40	85	6	13
50	80	13	13
60	75	19	13
70	70	26	13
80	60	35	13
90	50	43	13

*These cows receive enough protein from the corn silage and two pounds of soybean meal.

It is apparent from the above table that a 16 percent dairy ration fed according to production would meet the protein needs of most cows in the herd.

Another method of providing protein that has proven very satisfactory on many dairy farms is the addition of 10 pounds of urea per ton of corn as it goes into the silo.

Milk Produced (lbs.)	Corn Silage (lbs.)	Grain Fed (lbs.)	Protein Required (%)
20	85	0	*
30	85	3	3
35	85	5	7
40	85	8	8
50	80	15	11
60	75	21	12
70	70	28	12
80	60	37	13
90	50	45	13

*These cows receive enough energy and protein from the corn silage containing urea.

It is impossible to quote figures that would apply to all farms, but a few generalities will serve as an illustration. If a dairyman chooses a 20 percent ration, it will cost approximately $4 more per ton than a 16 percent ration. If he feeds three tons per cow per year, the increased cost will be about $12 more per cow per year.

If he feeds soybean meal at the rate of two pounds per cow per day, this will replace the energy in two pounds of dairy ration; therefore, he can reduce his dairy ration by two pounds per cow per day. But the soybean meal costs approximately 1.5¢ per pound more than a 16 percent dairy ration; this would increase his cost by about $11 per cow per year.

If urea is added to corn silage, the cost per cow per year is about $6.40. With soybean meal or urea, one would have some additional cost for mineral supplementation.

The Other Side

On the other side of the ledger, one must receive additional production to justify the additional cost. It is difficult to get accurate figures from farm observations, and impossible to quote figures that could be applied to all farms. However, we have seen almost universally-dramatic responses from feeding additional protein on all corn silage programs.

Many dairymen feel they have had a threefold return on money invested in additional protein. Of course, there is no way of being sure this will happen, but a simple test of substituting two pounds of soybean meal for two pounds of grain will give you an indication of whether your herd has a protein problem. Your bulk tank will show you the results within a week.

We believe that protein fed in proportion to the amount of corn silage consumed is considerably more efficient in meeting the cow's needs for protein, and will do the job better than feeding a dairy ration containing higher levels of protein. The most expensive alternative is to ignore the problem.

Mineral Supplementation

Responses to minerals are not as rapid and dramatic as responses to protein; however, in the long run proper mineral supplementation is equally important. Corn silage is low in calcium and phosphorus. We know that inadequate calcium or phosphorus can reduce milk production and cause various physiological disturbances. We also know that certain trace mineral elements (especially iodine) have been demonstrated to be inadequate on corn silage feeding programs.

Our recommendation is to provide minerals free choice as an insurance measure even though most of the commercial dairy feeds are fortified with minerals. It is best to let the cow tell you what her additional requirements may be.

A cow's diet should be sup-

(Continued on page 14)

*Extension Dairymen, University of Connecticut.



THE INNOVATORS:

The Men Who Profit With A Calfnip Headstart

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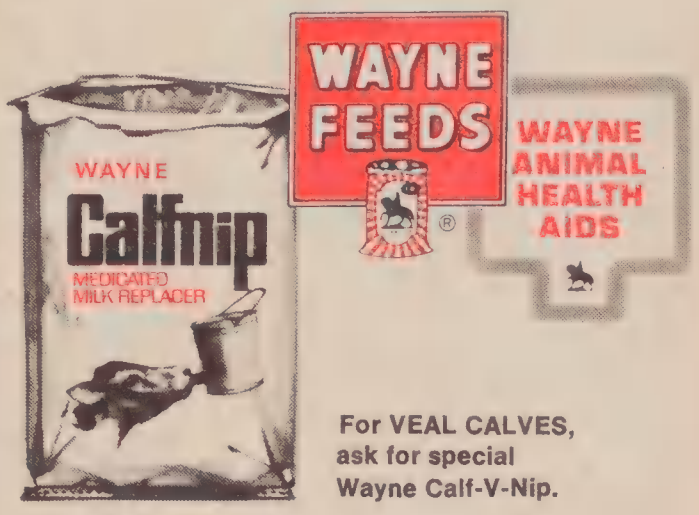
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Personal Farm Experience

STABLING COMBINATION

Fred Denman, Livingston Manor, New York, stables half of his 100-cow herd in conventional stanchions, the other half in an adjoining 80×84 free-stall addition . . . and milks them all with an around-the-barn pipeline in the stanchion area. He comments that if he were building new, the labor-efficiency advantages of the free stalls would leave no question about which kind of stable to choose.

Speaking of labor efficiency, Fred believes a reasonable goal for milk production per man is 600,000 pounds per year . . . about what he and his one year-'round employee are achieving now. They milk using two units per man, and Fred believes this is all a man can tend to very well . . . even with the pipeline.

From ⅔ to ¾ of all roughage fed is corn silage . . . and in 1968 he has enough left to supplement pasture with silage all summer long. He grows corn after corn on some fields, uses a total of 150-60-90 per acre for fertilization on corn ground not manured . . . plus a starter providing 10 pounds of nitrogen, 20 of phosphorous, and 20 of potash per acre.

Oats are "out" here . . . having proven unpalatable for hay and silage, and too small in acreage to justify efficient grain harvesting equipment. Fred seeds legumes and grasses direct without a nurse crop . . . plows, fertilizes, then discs . . . followed by bromegrass distributed with a tractor-powered broadcast seeder, then another discing. Finally, alfalfa goes on through the same seeder, and the field is rolled in the same operation.

Fred notes that the time of more corn silage came with the advent of better herbicides that lick the weed problem without time-consuming cultivations. He has 20×45 and a 20×50 silo to hold corn (53 acres in '67). It's all fed in a bunk at the free-stall area.

Although the barn addition was designed so that the previous barn could easily be converted to housing extensions of free stall rows, the combination works so well that Fred is not planning conversion. — *GLC*

SIX VARIETIES OF CORN

We milk 150 purebred Holsteins, and are raising 10 head of young stock.

We grow one crop . . . corn . . . on 240 acres. We tried feeding 100 percent corn silage as roughage for a year, but our production dropped and now we are buying hay. The cows have both hay and corn silage in front of them twenty-four hours a day. They have no pasture.

This is the third year we have fed urea, which is mixed into the grain ration. We are well satisfied with the results.

We plant six varieties of corn to spread the harvest. We start chopping September 1, and it takes a month to finish the job. We aim for 24,000 plants per acre, use 800 lbs. of 10-10-10, and shoot for 30 tons of silage per acre.

We have two pit silos, one 50×130 feet, the other 40×100 feet. We do not cover the silage, and have little waste.

In this area there are at least 2000 cows within a radius of 10 miles.

We have one hired man. We milk sixteen cows at a time, and it takes two of us about 3 hours to do the job.

We came from Rhode Island, and bought this farm five years ago. — *Wade Chubbuck, Breezy Hill Farm, Putnam, Conn.*



Warren Morse with a background of his grape vines.

"GRAPE COUNTRY"

In 1951 Warren Morse of Penn Yan, New York, bought a 132 acre farm on Bluff Point, between the two "arms" of Keuka Lake.

There were some grapes, but Warren set more — 3 to 5 acres a year, until now he has 26 acres of Concord and about 40 acres of wine grapes of several varieties.

"In 1955," said Warren, "we set some sour cherries, but they never paid well and we tore them out. One year hail hit us . . . and when the crop was good the price was low.

"Grape growers have been doing fairly well; in fact, farmers have been encouraged to set grapes . . . perhaps too many.

"The land on this farm needs drainage, and I put tile in before I set a new vineyard. The hybrid varieties tend to produce earlier than native varieties; we harvest a sizable crop the third year, but only a few on other varieties in that time.

"Grapes are sprayed at least three times . . . more often four to five times. To keep the vines growing so they can produce a good crop, we put on 250 lbs. of nitrogen carrier per acre every year, and 300 lbs. of potassium sulphate every other year.

"Help is a problem. During harvest we need from 10 to 15 workers. All winter we can use two men to trim . . . if we can get them. Few people know how, and we have to train them. Trimming takes most of the winter.

"Looking ahead," continued Warren, "I'm very much interested in a mechanized harvester that works when grapes are trimmed to a conventional trellis. Last year such a machine picked 5000 tons, and I understand the amount will be doubled or tripled this fall.

"In my opinion, one of the problems is to develop a lighter machine. The manufacturers tell us it can't be done, but I remember how big the first hay balers were, and how the size has been reduced.

"We have had some soil analysis, but recently we depend more on a leaf analysis. We get a test at a cost of $15.00 whenever we have a vine growth problem." — *Hugh Cosline*

UREA HELPS

We grow 175 acres of corn for silage, and our production goal is 35 tons per acre.

We feed a 16-percent grain ration, and we add urea to the silage as it is delivered to the bunker feeder. We figure to feed about a pound of urea per cow per day. It sure helps to cut costs.

The roughage for the herd is 99 percent corn silage (no pasture). We begin to feed corn silage to heifers when they are six months old.

To get 35 tons of silage we plant thick . . . 27,000 to 28,000 plants per acre . . . and fertilize heavily. We are able to cover some corn ground with hen manure from a nearby poultry farm. On this ground we use 400 lbs. per acre of muriate of potash; otherwise we use 1300 lbs. of a 15-8-12 fertilizer.

We are milking 90 cows, and plan to expand to 125. We store silage in two bunker silos 32×100 feet. They are eight feet deep, but I plan to add 4 feet of height to one of them this summer. — *Nick Savino, Scotland, Conn.*

CHANGES

We are milking 70 cows and farming 580 acres. We raise all our replacements. The farm could easily handle over 100 milkers plus replacements. We have an electrically-cooled tank, and the milk is hauled to the plant in cans.

We realize that we must make some changes, the question being how and what. The barn is structurally sound, but we have consulted engineers who tell us that converting the basement stable to pens is not feasible on a cost basis.

Another alternative would be to put in new stanchions, a bulk tank, and a pipeline or dumping station.

Before we decide what to do we plan to visit several farms to see what they have done and how they like it. Before we invest $50,000 to $100,000, we want to be sure we are doing the right thing!

At present this is a three-man operation. When it comes milking time the three of us use 4 single units and carry all the milk. I would like to get things organized so one man could do the milking if it became necessary occasionally.

We grow 80 acres of corn, some on the same ground year after year . . . and also we grow 35 to 40 acres of oats. Hay is baled, and in addition to corn we put some grain crops in the silo. We have been greenchopping in the summer, but will probably do more storing and less chopping in the future. — *James Carey, Groton, N.Y.*

A DAIRY BAR

Our experience is rather typical of this area. A few years ago there were 20 dairy farms in the town; now there are two.

We had a dairy and sold milk wholesale. Then we pasteurized, bottled, and delivered, but two years ago we sold the routes and the dairy and now have a breeding herd of 120 Herefords.

A good many calves are sold to 4-H members, and some consumers buy steers to put in the freezers. The rest are sold to a dealer in Lebanon.

However, the Herefords are a relatively small part of the business we three brothers operate. While we had a dairy we started a dairy bar, which we still operate, although we buy milk and dairy products.

Then we have a contract to operate school buses in a sizable area and own 112 school buses, each of which runs up a mileage of 12,000 to 15,000 miles a year.

Then, recently, my two brothers, Gilbert and Raymond, bought a hotel! — *Joe Negro, Bottom Dairy Farms, Bolton, Conn.*

EIGHT CENTS

We keep 30,000 hens on the floor, and sell about 40 percent of the eggs (brown) at retail, here and delivered to stores.

My father came here in 1921, and I took over in '48. We buy pullets and house about a third of the flock every 4 months. We keep them 15 months, and the last old hens I sold brought 8 cents a pound. Often they bring less.

We hire four men. There's no doubt but that cages save labor, and permit a man to take care of more hens. I have considered cages, but the houses we have are not suitable for them. The big question is this: would the big investment in cage houses cut labor enough to offset the interest on the investment?

We hear a lot about hens per man, but I feel that cost per dozen eggs is equally important. Also, the future of egg production is fuzzy, to say the least. Sure, eggs will continue to be produced, but the margin between costs and income is slim, especially when production is higher than demand. — *Harold Liebman, Lebanon, Conn.*

YELLOW GOLD

Home grown High-Moisture Corn for dairy cows

More and more dairy farmers are feeding home-grown, high-moisture shelled and/or rolled, and ground ear corn, as their primary concentrate energy source. This is especially true in the great dairy states of New York, New England States and Pennsylvania.

WHY: Because high moisture corn is high in feed value and is a highly palatable feed. Many farmers have reported increased milk production. But even more important, it gives you an opportunity to cut down on purchased feed costs because the price of dairy concentrate is generally much higher than the cost of corn with supplement.

But in order to cash in on this Yellow Gold, you need a Harvestore

Corn reaches its maximum feed production per acre at 30% to 35% moisture, so the sooner you harvest after the 30% level is reached, the more milk can be produced per acre.

Storing high-moisture corn can be risky. And that's where HARVESTORE comes in, because HARVESTORE is designed to provide maximum protection from the oxygen that causes storage losses and robs the corn of its feed value.

With a HARVESTORE system, mechanical drying is unnecessary and costly. You can harvest your corn earlier with less worry about the weather—get maximum yields with minimum field loss by harvesting as high-moisture corn. You can harvest and fill directly into the HARVESTORE structure and feed out mechanically with less work and labor.

There is a HARVESTORE size structure made especially for you dairy farmers — a 20′ x 30′ (nominal dimension) with a capacity of approximately 7000 bushels of shelled corn.

We don't ask you to take our word alone on the money-making potential of high-moisture corn. Below are reproduced the results of a Cornell University test published in the "Journal of Dairy Science"— April, 1968.



Cornell University trials

High moisture corn for dairy cows in early lactation
(extracts from reprint in Journal of Dairy Science—April, 1968).
Two HARVESTORES were used in these trials.

Two trials were conducted to evaluate high-moisture corn as the primary concentrate energy source for dairy cows in early lactation. In trial one, thirty-six Holsteins were divided into three groups to compare three concentrate rations, high-moisture shelled corn, dry ground shelled corn and pelleted dairy concentrate. In trial two high-moisture shelled corn was compared to high-moisture ground ear corn.

Here are the results!

TRIAL 1	High Moisture Shelled Corn	Dry Corn	Dairy Concentrate
Forage dry matter intake per day	11.66	15.84	16.28
Grain dry matter intake per day	20.9	19.8	19.8
Solids corrected milk (lbs./cow/day)	52.8	53.2	47.3
Concentrate % of total D.M. intake	64.6%	55.2%	54.8%

Comment: Average daily actual milk production of the high-moisture corn-fed group was 5.50 higher than the dairy concentrate-fed group.

TRIAL 2	High-Moisture Shelled Corn	High-Moisture Ground Ear Corn
Forage dry matter intake per day	16.3	19.4
Solids corrected milk (lbs./cow/ per day)	62.7	61.4
Concentrate % of total dry matter intake	56.6	52

Comments: Forage intake significantly lower for shelled corn group. Grain intake about the same.

Direct quote—"In all cases high-moisture corn, both ear and shelled, was an extremely palatable feed and no particular problems were encountered with cows going off feed."

Note: Space does not permit us to report the details of the trials. Your HARVESTORE dealer can give you more information.

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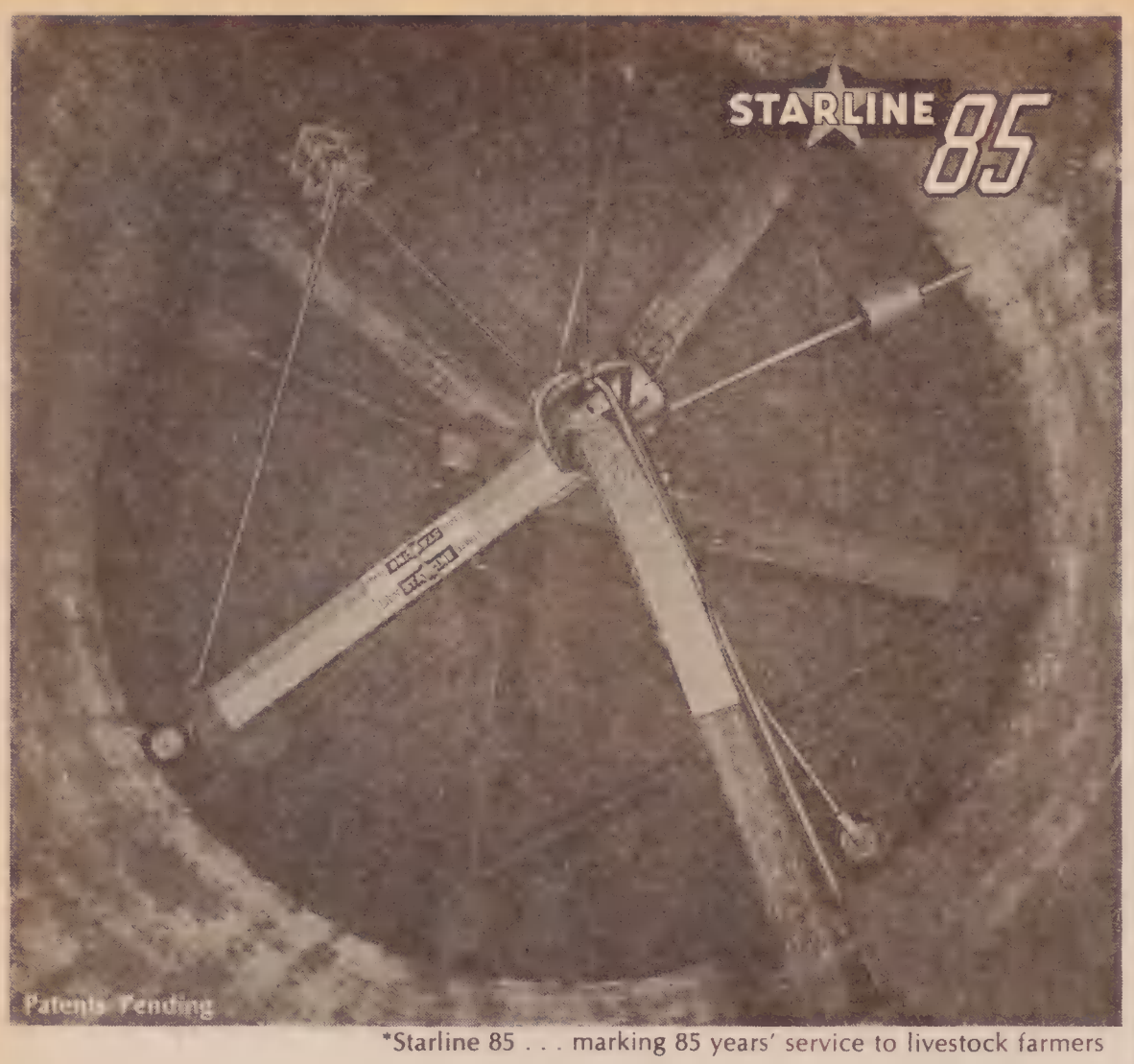
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BETTER WEEVIL CONTROL

by Rodger Beck

In cooperative studies on the alfalfa weevil, the Departments of Entomology, Plant Breeding, and Agronomy have found that stubble sprays are a "must" for many alfalfa growers. If larvae are present in the stubble, a spray should be applied immediately after hay is taken off. This is extremely important, for larvae feeding on small buds and shoots weaken the alfalfa plants, and stands can be reduced or completely lost.

In the Northeast the average time between cutting and getting the hay off the ground is about 4 to 5 days. Weevils chewing on buds and small shoots for this length of time can cause considerable damage.

In order to kill larvae on the same day hay is cut, Joe Campbell of Cornell's Agricultural Engineering Extension has developed a spraying attachment which is incorporated into hay conditioning equipment.

Here's how it works. The spray booms are located at the rear of the conditioning rolls in such a fashion that the hay pushed by the force of the moving rolls vaults over the booms. This allows the stubble underneath to be sprayed with only minimal contact to the new-cut hay.

Other Advantages

Besides killing weevils immediately after cutting, the combined conditioning and spraying operation literally cuts in half the amount of time it now takes to cut, condition, and spray the stubble. Furthermore, spraying occurs under optimum conditions, since hay is usually cut under clear, hot skies.

Chemicals

With the furor now going on concerning the residual tolerances in pesticides, it is important to note that only those chemicals with zero waiting period after application should be used. Two such chemicals coming under this classification are carbaryl (Sevin) and malathion. These allow grazing or harvesting the same day of application.

Improvements on the system are still going on at this writing, but the long-range practicalities of such a system are self-evident. For those of you with time to spare during the winter months, there is ample opportunity to investigate . . . and perhaps build such a unit for yourself. In this way it is possible to modify the attachment to best suit your operation. The estimated cost is less than $150, including tank, booms, nozzles, and pump. To obtain further information about the new system, write Professor Joseph Campbell, 328 Riley-Robb Hall, Cornell University, Ithaca, N.Y. 14850.

Silage

(Continued from page 10)

plemented with salt, calcium, phosphorus, and various trace minerals, including iodine, cobalt, iron and copper. These may be supplied by feeding separately trace mineralized salt and a calcium phosphorus source such as dicalcium phosphate, or by feeding salt and a good complete mineral mixture where the calcium-to-phosphorus ratio is no higher than 2:1. We have observed that cows that have been on corn silage for some time will consume large amounts of minerals initially, but will soon taper off to normal levels.

Vitamin Supplementation

No discussion of a balanced feeding program would be complete without mentioning vitamins. We all know that the dairy cow needs adequate amounts of vitamins A and D in her diet; however, we are somewhat less clear about what an adequate amount is. Corn silage may be low in both vitamins A and D. Most of the commercial mixtures are fortified with these vitamins. The cost of adding supplemental vitamins is quite reasonable; therefore, if your grain mixture is not fortified with vitamins, it would be very good insurance to add a minimum of 3000 I.U. of Vitamin A and 300 I.U. of Vitamin D per pound of dairy feed.

A Case man has something extra going for him

. . . because Case power is *usable power* . . . high-torque power from a big-bore, long-stroke, big-leverage engine. *Reserve power* that doesn't know how to quit when the going gets tough. Less downshifting, more ground worked, more production per man-hour with high-production outfits like this 6-bottom Case plow with on-land hitch.

You'll like the easy-going way these big moderate-speed Case engines handle the job. The tractor you see here is a 6-plow Case 930 . . . a 401 cubic inch diesel with a rated speed of only 1800 rpm. That's a cool 700 rpm less than some comparable tractors. Wouldn't you agree that a Case will last longer, require less maintenance . . . as well as handling those big jobs just a little easier and faster?

The 930 is available in both General Purpose and western-style Special models. It's worth a visit to your Case dealer to see and try one. He has a Case Crop-Way Purchase or Lease Plan to fit your budget. J. I. Case Co. Racine, Wis.

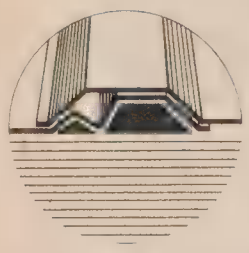
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The wide nailing strip to the right of the channel makes nailing easier. And water in the channel can't trickle through nail holes. The nonsiphon design of each sheet prevents water from seeping under sheets. Animals stay safe and dry.

And now RIGID-RIB is available in two colors. Republic White is widely used for heat-reflective roofing. Republic Turquoise makes a great looking siding. Available at your local Agway Outlet or your Republic Farm Products dealer. Ask about it . . . soon.

REPUBLIC STEEL

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LIVESTOCK

Beef Films – Meat Board and the American National Cow-Belles have announced the availability of a new series of five four-minute color films of beef, for use as short subject for TV. In addition to their use on television as separate segments, the five films also have been combined into a single unit for use as an education tool before student and consumer audiences. The films feature a pert, but somewhat bewildered bride, who, in following the advice of a friendly off-camera voice, takes the viewers on a series of informative beef cookery episodes. Each four-minute segment is a concise treatment of one of the following subjects: selection, broiling, roasting and outdoor cookery. For information on obtaining the films contact: Beef Industry Council, National Live Stock and Meat Board, 36 S. Wabash, Chicago, Ill. 60603.

Face Fly – Agricultural Experiment Station scientists at The Pennsylvania State University have found a new approach to controlling face flies, one of the major pests among cattle in the United States.

Their method is to use a concentrate of the bacterium **Bacillus thuringiensis** in cattle feed, according to entomologist Arthur A. Hower, Jr., and zoologist Tien-Hsi Cheng. This concentrate, thoroughly mixed with cattle feed, nearly eliminates face flies normally developing in cattle manure. The most effective test dosage permitted only two pupae to develop in cow manure, compared to 981 pupae developing in manure without the concentrate. Neither pupae emerged as an adult face fly. The feed additive was equivalent to 1.25 percent of a cow's daily diet.

Thorough mixing of bacillus concentrate with the feed is necessary for best results. The Penn Staters found that cows will eat around the additive if it is merely thrown in with the feed. The material is still in the experimental stage. Hopefully, it may eventually be produced commercially at prices acceptable to the average farmer.

Winner – Charolais and Charolais crossbred steer exhibitors won 10 of 12 grand champion and reserve grand champion banners when judging was completed at the first National Beef Show held at Cedar Rapids in July.

The show, which became the largest display of steers ever assembled for quality carcass competition in this country, drew exhibitors from 20 states. A total of 320 steers were judged live, then slaughtered for judging of carcass quality. More than one-half of the entries were Charolais and Charolais crosses.

Awards won by Charolais exhibitors included a sweep of the three divisions in which grand champion awards were made for carcass competition, plus two of the three reserve grand champion carcass awards.

In live steer judging, Charolais exhibitors were awarded grand champion honors in two of the three divisions, and reserve grand champion honors in all three divisions.

Growth Stimulator – Carbadox, a new nonantibiotic, chemical compound developed by Chas. Pfizer & Co., Inc., improves average daily gains and feed-to-gain ration in swine, reports Dr. R. D. Chalquest, director of agricultural research and development at the Pfizer Research Center, Groton, Connecticut.

At the end of the medication period, pigs receiving 10 gm./ton carbadox demonstrated an improvement of 11.1 percent in average daily gain.

The Song of the Lazy Farmer

The almanac says we'll be stuck this fall and winter with bad luck; it says the weather will turn cold much sooner than in days of old. Bright-colored autumn leaves will be all covered o'er with sleet, by gee; at Injun Summer time, I s'pose, we'll feel more like the Eskimos, and winter will deal us a clout like grandpa used to brag about. We're told we can expect the snow to pile up four feet deep or so; three days in four are bound to bring a blizzard from the north, by jing, and even when the sky is blue the temper'ture will chill us through.

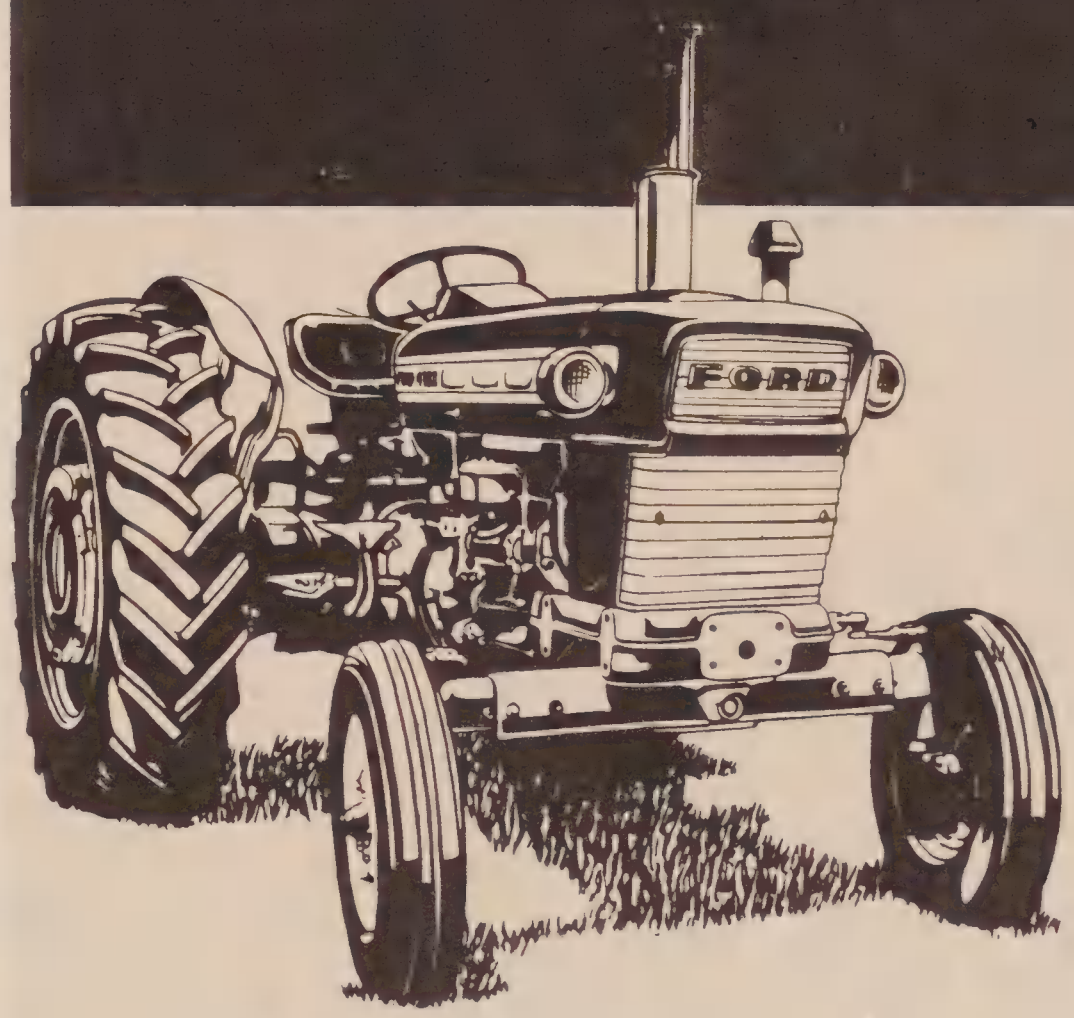


There's disagreement at our house 'bout what that forecast means; my spouse insists it's all just foolishness, she says there's no one who can guess about what weather's apt to do for more than just a week or two. But signs already show this fall that almanac is on the ball; I say we should get ready for the weather it says is in store by selling off our pigs and sows and also all our calves and cows and cut our hens to two or three . . . their eggs will be enough for me. That way, we'll cut down on our chores and spend most of our time indoors.

American Agriculturist, September, 1968

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Then, we'll tailor payments to your needs—semi-annually, annually, or by crop. In the meantime, use your cash reserves or local credit sources where it earns the most for you. What a break in these days of tight money! See us now for details on "Trade 'n Save" and the Sales Stampede.

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Paul flies a Hughes 300 helicopter to keep track of his operation.

A Non-Gambler with Chips

Here's a potato grower who prefers stable prices to large-scale price gambling . . .

by Gordon Conklin

EVERY potato grower knows that producing spuds has elements of risk . . . the weather, the availability of harvest help . . . and, above all, the price roller-coaster. The ups and downs of potato prices have literally caused a grower to buy a new Cadillac one year, and barely be able to license it the next! There's a certain excitement to living dangerously, though, and outsiders have suspected that many of the old-timers among spud growers secretly enjoy their form of gambling for high stakes.

Paul McCormick of Bliss, New York, has a somewhat different philosophy . . . more typical of the new breed of farmers who seek greater price stability, and are willing to sacrifice and prospect for making a killing in return for more predictable margins. He's been selling practically all his potatoes since 1949 to the Wise Potato Chip Company, headquartered at Berwick, Pennsylvania . . . and now a subsidiary of the Borden Company. Company founder Earl Wise launched the potato chip upon the seas of large-scale business away back in 1920.

Hedged

Actually, Paul retains some opportunity to move with the market . . . contracting (at a stipulated price) only 60 percent of his crop, with 40 percent not on contract. So he's hedged against a market price decline by the contracted portion, and hedged against a market boom with the uncontracted potatoes.

"Sure, I've shipped potatoes at contract price when the open market was paying more, but I've also watched a lot of plungers go under," Paul comments. "I still do a little gambling with part of the crop, but our volume is too big to risk gambling on all of it. I'm more interested in developing a sound long-range market, and then working closely with the market outlet people in the usual give-and-take of business."

In 1968, Paul has 835 acres of Irish potatoes, and expects a yield in the range of 450 to 500 bushels per acre. Varieties (and 1968 acreages) are: Russett Rural (500), Kennebec (250), Katahdin (35), Norland (25), and Superior (25).

Plowing is done with two 4-bottom plows . . . both the roll-over, or one-way type that leave no dead furrows or back furrows. On most fields, the only other tillage before planting is done by a clodbuster trailed behind the plow . . . unless Eptam herbicide is being used, in which case it must be incorporated in the soil by a harrow of some type.

Eptam is used where nutgrass is a problem . . . applied on a dry soil and incorporated immediately. Premerge is put on (just as potatoes emerge) in fields where there is no grass problem, cleaning up broadleaf weeds. Paraquat was used at crop emergence time on McCormick Farms for the first time in 1968 . . . setting quackgrass back sharply, and cleaning up the broadleafs. It also knocks out any rye left over from the cover crop. Potatoes are normally cultivated three times, hilling them the last time through.

Systemics

Planting is done with two 4-row planters, having a combined capacity of 50 acres per day. A systemic insecticide . . . Di-Syston . . . goes on in a granular form at planting time, and holds insects in check until mid-August. After that, a spray-applied systemic (Meta Systox R) fights off insects the rest of the season.

All sprays . . . including those applying fungicides Dithane M-45 and Difolatan at 5 to 7 day intervals . . . are laid down by commercial helicopter. This is the second year Paul has gone "all air" in spraying spuds . . . 1967's crop showed no blight problems even though it was a season encouraging to the disease.

There are now no rows where

(Continued on next page)

yields are cut by the tramping of sprayer wheels, and Paul has been able to shift a considerable amount of spray management responsibility to the custom spray people . . . freeing up his time for more attention to some other areas of his gigantic management load.

Inhibitor

As the potatoes grow, a sprout inhibitor (MH-30) is sprayed on a portion of the crop. It's not needed on anything that will be shipped before January 1 . . . so it's a bit of guessing game as to how many acres to cover. The gas CIPC is also used in some storage bins to inhibit spud sprouting.

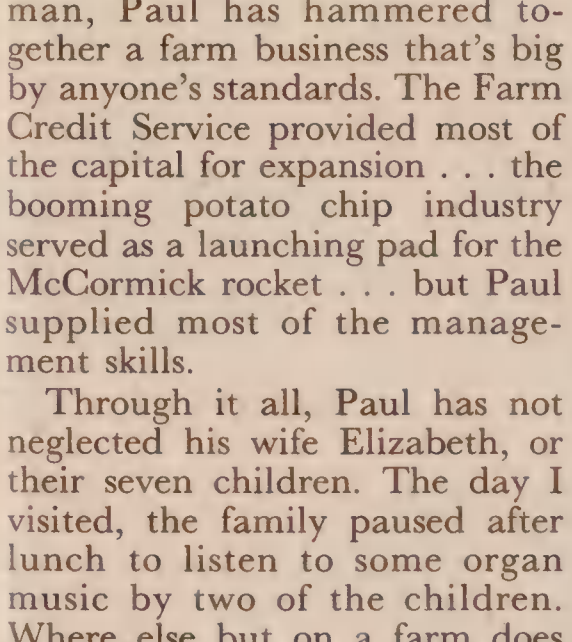
Harvesting time brings out the four potato combines Paul owns, as well as crews picking up potatoes by hand. No pallet boxes here . . . all potatoes are handled bulk from field to the shipping plant. Five storages at McCormick farms have a total capacity of 290,000 bushels.

Other Enterprises

Potatoes are not the only enterprise in this operation that involves about 2000 acres of land. A new dairy barn with 200 free stalls is just being completed . . . a three-man setup operated as a separate corporate structure. Other crops include around 160 acres of corn, 120 of wheat, 400 of hay, and some rye not plowed down as a cover crop.

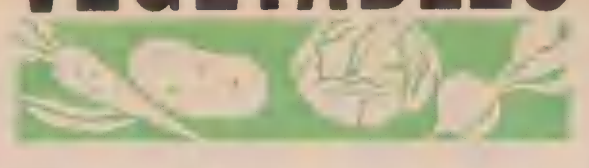
Starting 25 years ago as a hired man, Paul has hammered together a farm business that's big by anyone's standards. The Farm Credit Service provided most of the capital for expansion . . . the booming potato chip industry served as a launching pad for the McCormick rocket . . . but Paul supplied most of the management skills.

Through it all, Paul has not neglected his wife Elizabeth, or their seven children. The day I visited, the family paused after lunch to listen to some organ music by two of the children. Where else but on a farm does the family have so many opportunities to do things together? Watching, I guessed that the seven young McCormicks would be the most important crop their parents ever grew.



Paul checks a hydrothermograph placed by the county agent at one of the McCormick potato storages. It's a device that helps to predict blight infection severity, and thus indicates appropriate spray intervals.

VEGETABLES



Potatoes — According to John Schoenemann, Extension potato specialist at the University of Wisconsin, control of storage conditions of potatoes varies with the length of time a grower intends to store his potato crop.

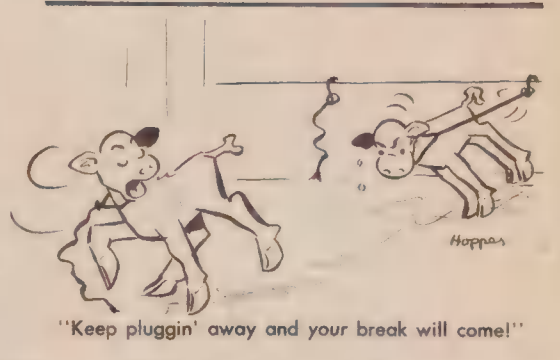
With short-term storage, temperature control is not critical, but humidity must be maintained at a high level to prevent shrinkage . . . keep the humidity at 90 percent and the temperature at 55 degrees.

Long-term storage for fresh use requires more critical control of storage facilities . . . maintain a temperature of 45 degrees and a humidity of at least 90 percent.

Potatoes in long-term storage need to be warmed for two weeks before shipping. This is accomplished by maintaining a temperature of 55 to 60 degrees. This helps remove the sugar that accumulates at low temperatures. The warm-up period also makes potatoes less subject to bruises and damage during handling.

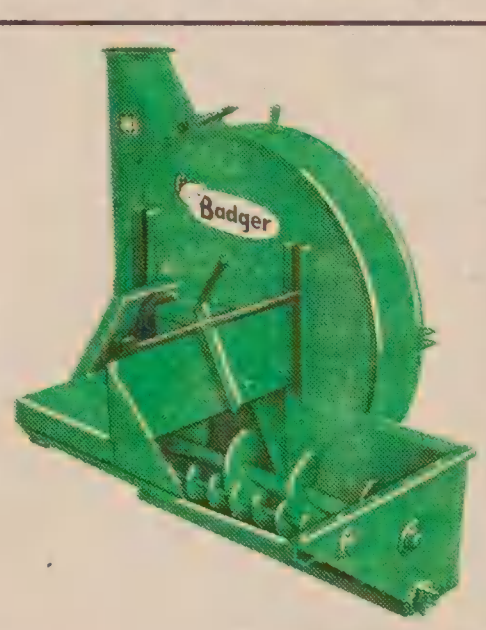
When potatoes are first put in storage, they need a two-week curing period. This is accomplished by keeping the temperature around 60 degrees with at least 90 percent humidity. The curing period helps heal cuts, bruises and wounds. After this is done, the temperature may be dropped to the desired level.

Sprouting becomes a real problem in storage. Sprout inhibitors such as MH-30 may be applied to plants while they are in the field before harvest, or CIPC in the vapor form may be applied after the curing period through the ventilation system.



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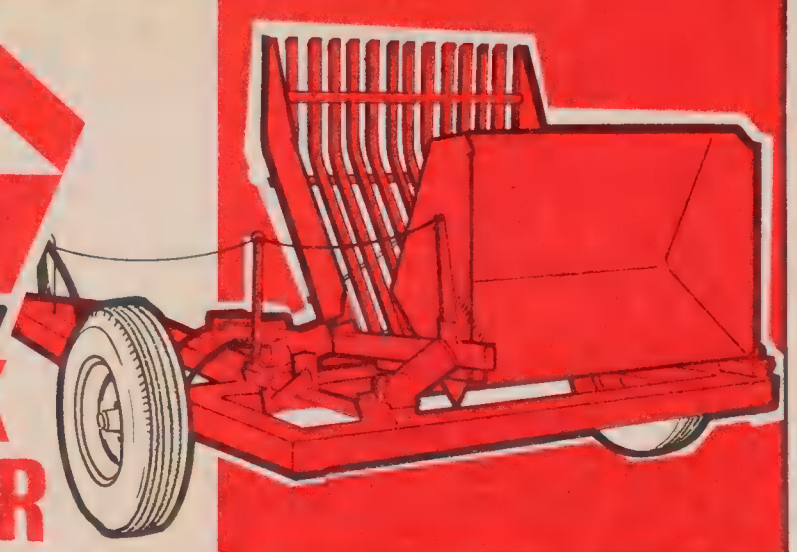
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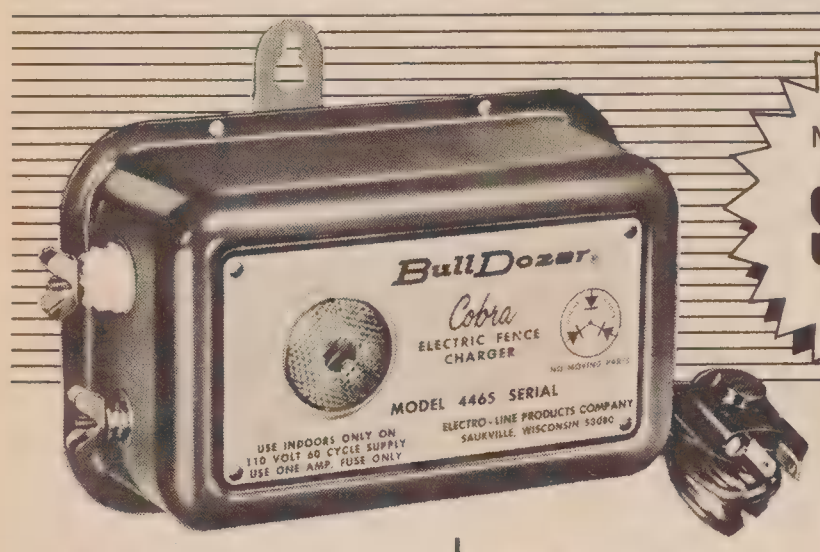


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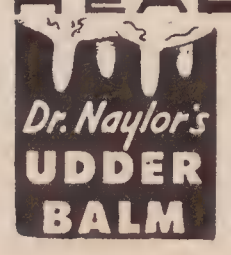
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Dollar Guide

For The Northeast Farmer

IN SPITE OF a reduction of 7 million crop acres compared to 1967, U. S. yields promise to be big, perhaps to a record total. Wheat crop is estimated around 1.5 billion bushels, up 4 percent from last year (and 29 percent above average); corn, 4.5 billion bushels (average national yield of 80 bushels per acre predicted); soybeans, over 1 billion bushels, an all-time record. Potatoes, acreage down 4 percent on fall crop. Apple crop predicted down 2 percent from last year.

SOME DAIRYMEN have reported a decrease in milk production following use of free stalls. One probable reason is too little feed consumption. There are possible remedies. One is to mix a concentrate with corn or grass silage fed in bunks. High-producing cows may have too little time to eat enough grain while being milked, especially if they are fed high-moisture corn.

RATIO OF FEED price to milk price is favorable for dairymen, but it appears they are not taking full advantage. In midsummer, grain feeding to dairy cows was 12 percent above 1966, but milk prices are up an average of 16 percent.

CABBAGE HARVESTERS are available from E. Boyer, R.F.D., Albion, New York, and from Cummings and Bricker, Inc., Batavia, New York (Wright Harvester) ... so reports Extension Agent Bob Becker, Farm and Home Center, 480 North Main Street, Canandaigua, New York 14424. Other companies have demonstration models that will be shown this fall.

WHITE MOLD of snap beans is often a problem in wet years. Botran fungicide is labelled for control ... applications beginning when disease is anticipated, and continuing at 7-day intervals during danger periods.

HEAVIER USE of commercial fertilizer has made more practical the plowing down in the fall of large quantities of phosphorus and potash. Idea is that fertilizer costs are relatively low ... labor costs are high ... so it can be more profitable to keep soil fertility levels high with heavy applications at times of low, low labor demand.

"MANAGEMENT OF AQUATIC PLANTS," Cornell bulletin E-1203, provides detailed information on water plants, types of chemicals, and general recommendations for control. Single copies free to residents of New York State; 10 cents each to out-of-state people. Write Mailing Room, Research Park, Ithaca, New York 14850.

EARLY WEANING of dairy calves creates stress. They should each be eating at least one pound of calf feed per day before weaning.

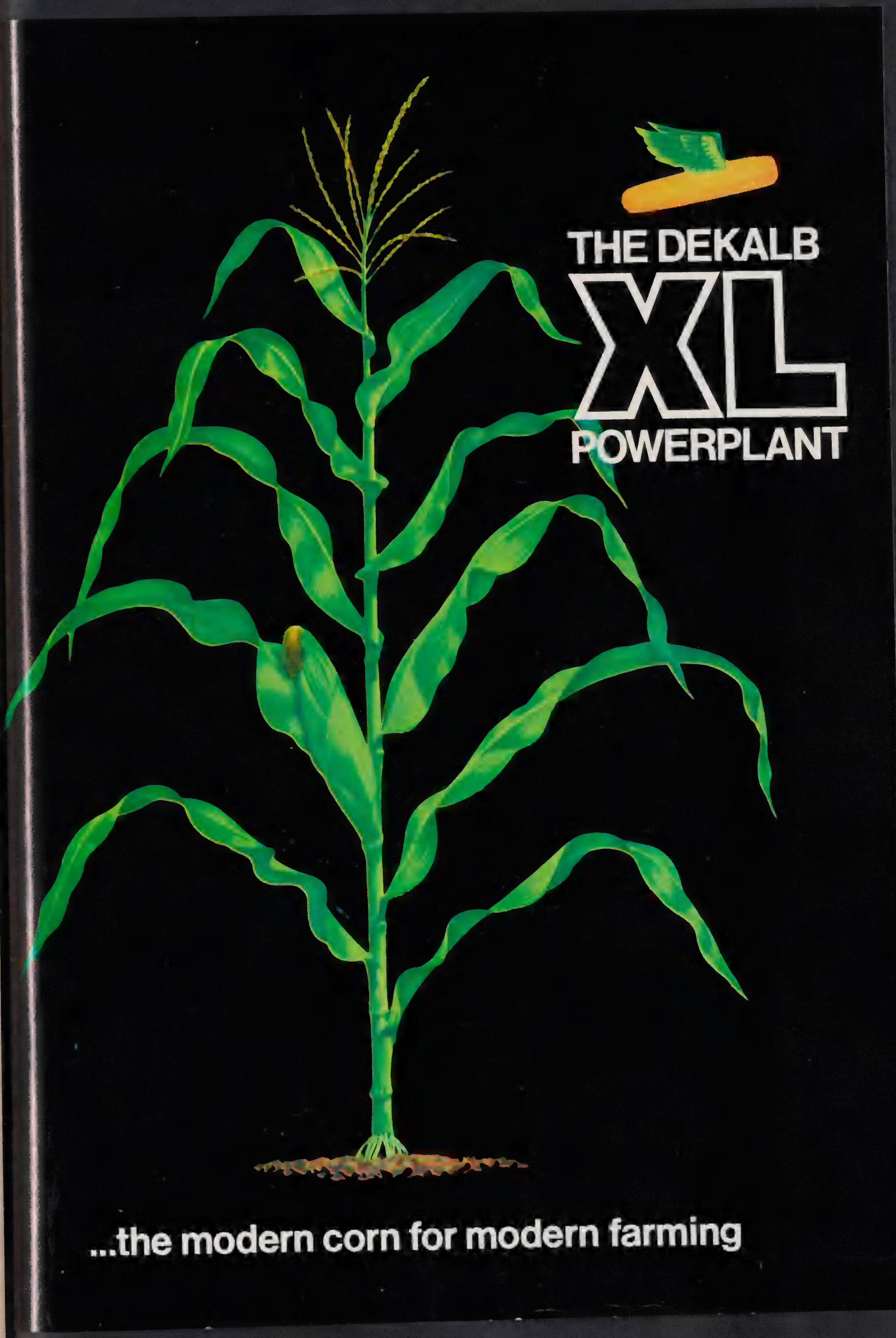
LOOKING AHEAD, remember that your Federal income tax will take a bigger slice of profits this year ... and probably for many years. Temporary tax increases have a habit of becoming permanent.

U.S. FARM PRODUCTION per man increased 4 percent in 1967. One U.S. farmer now produces enough to feed and clothe himself and 41 other people here and abroad.

EXPERIMENTS at The Pennsylvania State University indicate that applying lime to fields and gardens in summer or fall may be one of the cheapest ways to protect crops from dry weather next summer. Such lime application increases the ability of plants to make the best use of soil moisture in dry years.

SHIFTING MILK MARKETS may mean that you may find inspection is much stricter. If there is any possibility of losing your present market, it will pay to check to see what changes you would need to meet stricter inspection, and make the changes gradually.

American Agriculturist, September, 1968


THE DEKALB
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THIS IS THE DEKALB BRAND XL POWERPLANT

The Shorter Corn With The High Yield Power

DeKalb has re-engineered the corn plant and the result is a *Powerplant*. Bred shorter, to convert more energy into grain yield. It's the corn that has produced more than 50 verified yields above 200 bushels in the past two years.

Tougher, Stronger Stalk

DeKalb research insists on hybrids with a tough shank and high degree of mechanical stalk strength. That's one reason why the *Powerplant* thrives at high population.

Bred-in Resistance

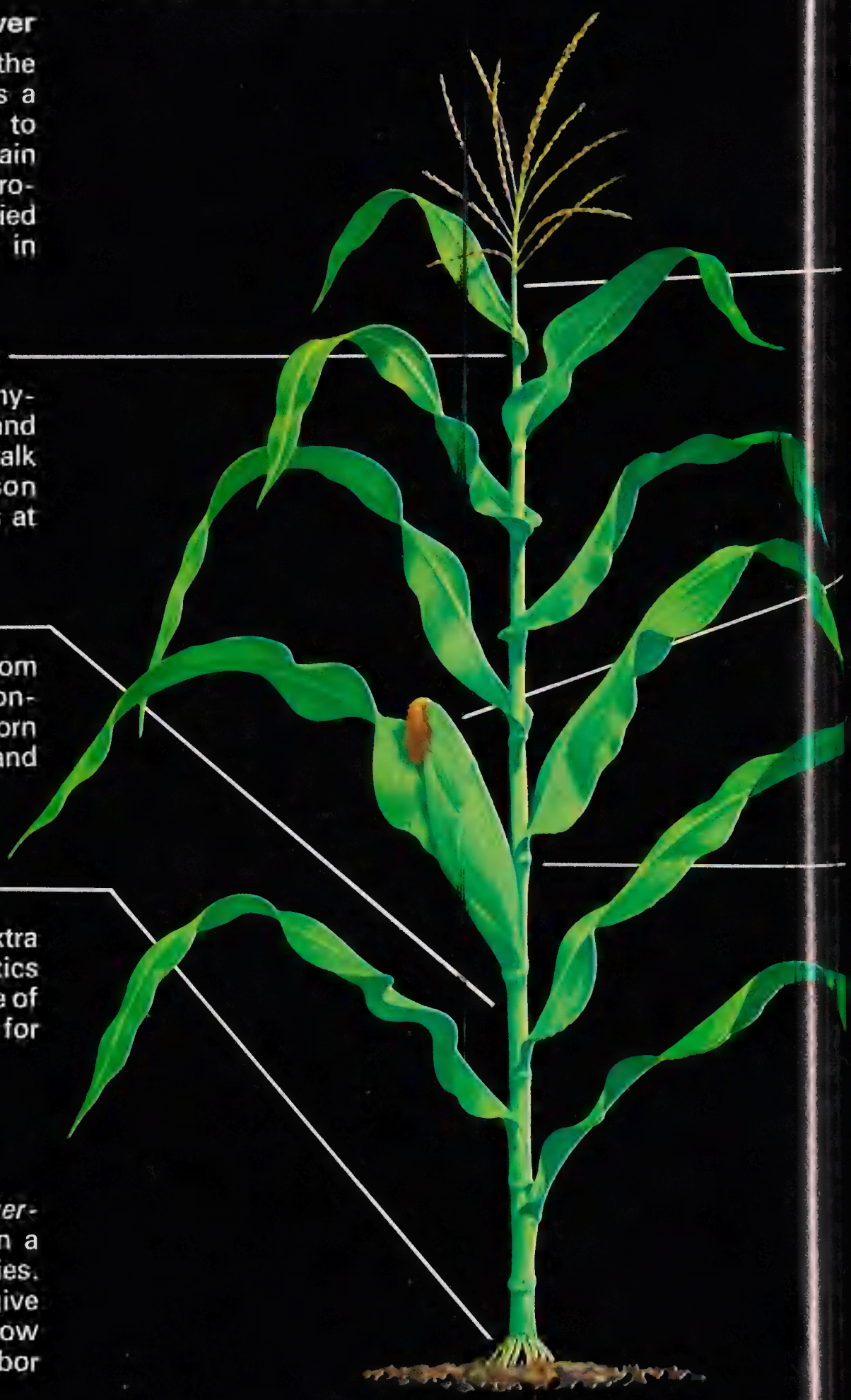
The *Powerplant* is bred from parent stocks with a demonstrated resistance to such corn enemies as blight, borers and stalk rot.

High Response to Moisture, Fertility

The *Powerplant* has the extra vigor of concentrated genetics —so can make maximum use of higher fertility and moisture for increased yields.

A Complete Power Package

There is a DeKalb XL *Powerplant* for every condition, in a complete range of maturities. You can select varieties to give you a maturity spread and allow most efficient use of your labor and equipment.



Narrow Rows, High Population

Increased plant population—in narrow rows that reduce crowding and competition—is a necessity as you continue to push for higher yields. And high population calls for the shorter DeKalb XL *Powerplant*.

Early Maturity; Little Sacrifice in Yield

With the *Powerplant*, you have it both ways: (1) the added safety of early maturity, and (2) high yields, because this is the plant that can take full yield advantage of high populations.

High Harvestability, Easy Combining

Big yields alone are not enough—it's how much of the yield you can harvest. Short, rugged *Powerplants* stand strong and hold their ears, allow you to field-shell rapidly. There's minimal down stalk, dropped ear or shelling loss.

High Test Weight

The *Powerplant's* big yield is high quality grain; many farmers report test weight from 57 to 60 pounds per bushel.

Choose The Grade (Seed Size) You Prefer

Flat or round, and regardless of size, each *Powerplant* seed has all the locked-in vigor of DeKalb's XL breeding. Save money with economy seed sizes. Your DeKalb dealer has the correct plastic planter plate for each size.

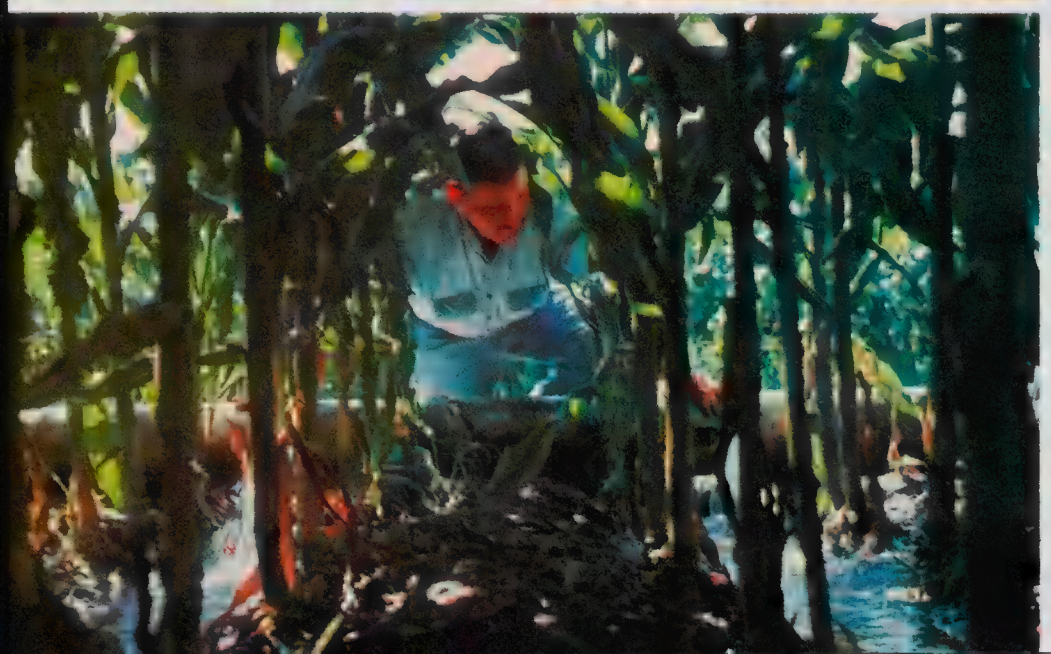


The seeds of revolution in corn-growing

Today, DeKalb genetics engineering gives farmers seed corn that can yield an average 175 to 200 bushels—or more. (Before modern hybrids of the XL *Powerplant* type, a good average yield goal for a corn-grower was 100 bushels.) This revolution in corn-growing has also increased the national average from 53 to 78.2 bushels in seven years. More: a billion bushel crop, in 1967 in Illinois, broke all state and national records; the yield averaged more than 100 bushels per acre. Results like these show what today's farmer, a modern management man, can do with progressive cultural practices and improved production tools—better fertilizers, herbicides, insecticides, and the virtually "shock-proof" XL hybrids. DeKalb single-cross and 3-way breeding provides the high-efficiency corn plant. It helps the corn-grower generate the best profit from land, labor and equipment. A product of DeKalb research: the XL *Powerplant*.







CHOOSE THE DEKALB XL POWERPLANTS

XL-315 *Great New York Hybrid!*

New York farmers have found XL-315 to be a great hybrid for their needs for grain and silage. Gillam Brothers of Clifton Springs in Ontario County compared XL-315 with three other well-known DeKalb hybrids—XL-306, XL-307, and XL-45—in full acre, machine harvested checks and it outyielded them all with a DeKalb 200 Bushel check of 184 bushels. Melvin and Fred Olmstead of Holcomb harvested 172.16 bu. of XL-315 from their DeKalb 200 Bushel check. They said, "XL-315 gives us both good yield and standability. It will be hard to find a variety to beat it." XL-315 is also a good silage hybrid.

XL-316 *SILAGE & GRAIN*

This new hybrid was tried in a very limited fashion New York last year. It has the same maturity as XL-3 but is taller. One of those who tried it was Ted Min of Geneva in Ontario County. He had a yield of 177 per acre in DeKalb's 200 Bushel Club. Here's Min report: "XL-316 was my highest yielding corn. It is little tall for picking, but would make an excelle silage corn." In extensive DeKalb Performance Testi in many locations, XL-316 yielded 5 bu. above XL-3 and was much better in stalk strength. You'll like th great new hybrid. Plant it for silage, but you'll be gl to have extra acres for its big grain yields.

XL-306 *"XL-45 of the North"*

XL-306 is a few days earlier than XL-315 and XL-316, but has been outyielding them both. XL-306 has the characteristics of DeKalb's top hybrid XL-45, but is some 10 days to two weeks earlier. Those qualities which have made XL-45 America's top hybrid have made XL-306 a leader in the northern corn belt. These are dark green color, short stalk, ability to take high populations and narrow rows, ease of harvesting and high test weight. Seed production of XL-306 is way ahead of any other hybrid in its maturity because of the proven demand for it. XL-306 should be part of your 1969 corn program. Don't overlook its many virtues.

XL-304 *Tremendous Yielder*

This early hybrid—about 5 days earlier, than XL-306 is an outstanding performer. It yields like a hybrid later maturity and still has excellent stalk strength. F example, in DeKalb testing at Chatham, Ontario closest test to New York—XL-304 had the top a around performance of 49 hybrids, combining bo excellent yield and limited lodging. It outyielded all oth commercial hybrids—and had one of the top ratin on stalk strength. XL-304 can make big yields und the best conditions—it made 163 bu. of No. 2 corn Minnesota in DeKalb's 1967 200 Bushel Club—a figu practically unheard of for a 95-day hybrid.

XL-45 America's Top Hybrid!

This great hybrid is a little too late for grain production in most of New York. But it can be used as an outstanding producer of high energy silage. Makes big grain yields on short stalks, which stay green as ears dent and ripen. Strong-stalked, leafy.

XL-325 Short—Modern Hybrid

Similar in general characteristics to XL-45 but five days earlier. Short stalks with girthy ears, deep kernels and high test weights. XL-325 is a good yielder, takes high populations and narrow rows and combines easily. A profit-maker.

XL-320 NEW!

With excellent resistance to corn borer and leaf blight, XL-320 is about halfway in maturity between XL-306 and XL-325. In 1967 DeKalb testing, it ranked 4th among 49 hybrids tested at 22,000 population in 4 northern states. Try it!

XL-307 Short—100 Day

Special hybrid for big yiel farmers. Capable of to yields under the best of con ditions at high popula tions For a good combinat on o three early hybrids, tr XL-304, XL-307, an XL-306. You'll get those bi yields that mean mon ey.

29 An early 4-way (80 days) which has performed capably under a wide range of conditions over several years. Short, smooth-eared, capable of 100 bu.

45 Another 4-way of 90 day maturity. Has also demonstrated ability to perform well over a period of several years in the northern corn belt.

59 At one time the leading seller in its maturity bracke (105 days). Vigorous, of medium height, with lon ears, DeKalb 59 is for either grain or silage.

XL-15 This 105-day single cross has exceptiona uniformity in stalk and ear, yields well a moderate populations. Short with golden-bronze ea rs.

N.Y., N.E.—189M—9/68

NEERED FOR YOUR AREA

-138 **90 Day— Good Yielder!**

a maturity of around 90 days, 38 can make a quick crop— ther planted early or late. For a y of its maturity, it has a yield tial equal to varieties 10 days XT-138 is a short hybrid with g stalks, which contribute to standability.

-302 A 90-day hybrid with 3-way XL ling. In DeKalb tests at 22,000 est population outyielded 04, but stalk quality was not as good. Pair it with XT-138.

-218 **Compact, Grain or Silage**

hybrid made a great record in . It showed ability to produce ields of high quality grain on act plants which stayed green o excellent disease resistance. xcellent choice for either grain age.

XL-342 **Disease Resistant!**

2 or 3 days later than XL-45, XL-342 likewise has good stalk strength and ability to take high populations. Like XL-45, it makes an excellent silage hybrid with a later maturity and a high grain-stalk ratio. Blocky, heavy ears.

XL-347 **SILAGE**

Recommended as a silage hybrid only because of later maturity. Later than XL-45 and somewhat taller, it is still capable of high grain yields. Rapidly replacing XL-346 because of shorter stalk, longer ear and higher grain yield.

EX-14 Brand new hybrid of XL-306 maturity. A tough hybrid for high populations.

XL-24 **NEW!** XL-315 maturity. yields at all populations!

Characteristics of DeKalb Hybrids

Earliest To Latest	Pop. Rate	TOLERANCE RATING		
		Blight	Borer	Stalk Rot
2	A.A.	Very Good	Good	Good
4	A.A.	Excellent	Very Good	Excellent
XT-138	A.A.	Very Good	Excellent	Excellent
XL-302	H.	Excellent	Very Good	Excellent
XL-304	H.	Excellent	Excellent	Excellent
XL-307	H.	Excellent	Excellent	Excellent
XL-306	H.	Excellent	Excellent	Excellent
5	A.	Very Good	Very Good	Very Good
EX-14	V.H.	Excellent	Excellent	Excellent
XL-15	A.A.	Very Good	Good	Very Good
XL-315	A.A.	Excellent	Very Good	Excellent
XL-316	H.	Excellent	Excellent	Excellent
XL-320	H.	Excellent	Excellent	Very Good
XL-24	V.H.	Excellent	Excellent	Excellent
XL-325	V.H.	Excellent	Excellent	Excellent
XT-218	H.	Excellent	Very Good	Excellent
XL-45	V.H.	Excellent	Excellent	Outstanding
XL-342	H.	Excellent	Excellent	Excellent
XL-347	V.H.	Excellent	Excellent	Outstanding

*VH—very high; H—high; AA—above average; A—average; M—moderate or below average.









It pays to go all the way with DEKALB Powerplants

Make more money with DEKALB Powerplants for silage

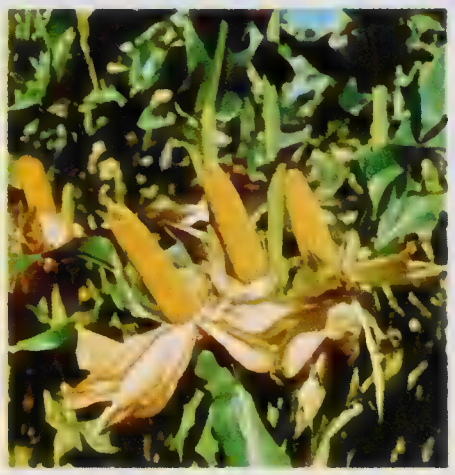
Silage can well be the highest profit crop on your farm. By planting hybrids especially adapted to your area, and by observing management factors as carefully as you would for a top grain yield, you can get the maximum T.D.N. from your silage acres.

The University of Illinois reports that with 15 tons of corn silage per acre, you can produce 1,800 to 2,000 pounds of beef by feeding steer calves, for a gross return of $350.00 to $500.00 per acre. 125 to 150 bushel-acre grain yields are worth only about half as much.

In a Georgia state silage show, Willie Perkins, Jr. the grand championship with his DeKalb FS-1a Fo Sorghum. He says, "Before I fed FS-1a, my herd o cows produced less than 10,000 pounds of milk avera While being fed FS-1a silage, the herd increased its a age production to 12,867 pounds of milk."

CORN

High Energy Silage



The modern idea on corn silage is to harvest high energy or high T.D.N. silage —with a high ratio of ear to stalk. This demands rather short hybrids which can take high populations and put an ear on every stalk. These are characteristics of most DeKalb "XL" and "XT" hybrids. In addition, these new hybrids have bred-in disease resistance which keeps them green as ears dent and ripen. This combination of plenty of grain and green, juicy plants makes a silage highly relished by cattle. They'll eat plenty to put on outstanding gains or produce milk at a higher rate.

High Tonnage Silage

It is not always possible or convenient to try for top yields of the highest quality silage, due to unfavorable weather conditions and fertility problems. In that case, it may be desirable to plant DeKalb's four-way crosses or combinations of them which will perform well under less favorable conditions at a lower seed cost. Varieties like 29, 45, 49, 415a, 441a, 624, and 640 have been widely used over a period of years as silage, covering a wide range of maturities.

Top Yields Demand Top Management

1. ***Fertilization***—as heavy as for top grain yields, to 300 lbs. N, 150 P_2O_5, and 200 lbs. K_2O per acre
2. ***Water Supply***—must be ample for top yields. Irrig liberally or conserve moisture by controlling wee planting in narrow rows, and fertilizing heavily to down on water needed per pound of dry matter.
3. ***Population***—plant at recommended rates with e plant distribution. Consider narrow rows.
4. ***Control Enemies***—use chemicals and cultivation control weeds and insects.
5. ***Plant Early***—to help control crop enemies, get pl well-matured before summer droughts, and start h vest early.
6. ***Harvest at Right Stage***—70% moisture is conside ideal for silage.

FORAGE SORGHUM

DeKalb Forage Sorghums make big tonnage. The high content and sweet, leafy stalks give good T.D.N. plus palatabi They're popular alone, or with corn for silage. Tolerant to dro and sandy or thin soils.

FS-4 NEW! A "go everywhere" forage. Sweet, and 10 to 12 days earlier than Atlas. Excellent standability, plus Anthracnose resistance. Abundant grain to enrich the silage.

FS-1a High-grain fora superior feedi quality . . . large, full heads grain produce high grain ra An early hegari type, norma from 6 to 8 feet tall.





DEKALB BRAND Alfalfa

123 Extra winter-hardy . . . to replace Ranger and Vernal in northern areas. Has shown higher yields than common alfalfas in extensive tests.

153 Strong late-season producer with winter hardiness and disease resistance. Excellent for areas where Buffalo was once popular.

Fine-stemmed...Leafy...Wilt Resistant...High Yielding

How to generate more money with XL Powerplants
THE DEKALB 5-POINT PROFIT PROGRAM

1. *Plant early . . . and shallow*

Early planting increases yields with little added expense. Early corn yields more, is often a foot shorter, has stronger stalks and larger root systems. It has fewer barren stalks and uses nitrogen more efficiently. It silks ahead of the hottest days, uses the extra light of the longest days more efficiently, is well made before August drouths and permits early harvest.

Three precautions should help. 1) Plant shallow (1" to 2") to get seed in warmer soil for quicker germination. 2) Use chemical weed control as weeds may outgrow corn at cooler temperatures. 3) Pop-up fertilizer can help early corn get away to a faster start.

2. *Plant thick . . . in narrow rows*

Yield equals grain produced per plant by number of plants per acre. Based on .4 lb. of grain per ear, a 150-bushel yield of shelled corn takes 21,000 plants per acre at harvest. It requires corn that won't break down under stress of high population: XL Powerplants, the hybrids developed and recommended for thick planting. Plant heavily enough to realize your yield goal, allowing 15% for possible growth hazards. Use narrow rows to give high populations more space between plants in the row—so each plant has more "living room." Thick growth in narrow rows also shades the ground quickly, discourages weeds, and helps conserve soil moisture and sunlight.

3. *Fertilize heavily . . . and don't forget lime*

Today's higher populations and production require more soil nutrients than before; natural soil fertility is seldom enough for yields above 100 bushels. For example, 150-bushel corn (or 30 tons of silage) needs about 240 lbs. of N, 90 lbs. of P and 185 lbs. of K per acre. Soil and tissue testing will determine your best fertility program, to get all the high response bred into XL Powerplants. Lime aids top yields, too. It counteracts acidity in the soil and N fertilizers, helps provide the optimum 6.79 pH for corn production. Lime also makes important trace elements available for plant use, and improves the soil for bacterial breakdown of organic matter.

4. *Control weeds and insects . . . with chemicals and cultivation*

Your best safeguard against corn enemies: use resistant XL Powerplants plus a control program based on positive identification of the weed-and-insect culprits of your area. There are preplanting or above-ground chemicals effective against most insects; be sure a product is government-cleared for use on the crop, and handle all chemicals as directed on label. For weeds, pre-emergence herbicides are the key with early-planted corn in narrow rows. Later growth shades ground, keeps new weeds down, but weeds allowed to start with the corn will compete all summer and cut yields. If early controls fail, due to weather or other conditions, use post-emergence materials or immediate cultivation.

5. *Plant all DeKalb . . . in a range of maturities*

XL Powerplants, bred to produce under a wide range of conditions, are available in a choice of varieties and maturities unequalled on the market. Plant a combination of three varieties for extra advantage: the maturity spread improves opportunity to harvest early and to harvest all corn at desirable moisture. Use of three hybrids also protects against variations in soil, season or stress—means no single hybrid will bear the brunt of unusual conditions. Whatever your Powerplant choice, count on top yields, no breakdowns with use of your DeKalb 5-Point Profit Program. Ask us for details, other helps. Yours: our wide resources and services (not simply a bag of seed).











Your Powerplant profit guide...pull out and save for reference

Your Powerplant profit guide...pull out and save for reference

THE DEKALB 200 BUSHEL CLUB
Here are some top POWER PLANTERS of '67



A few of the 35 outstanding farmers who topped the 200 mark in the 1967 DeKalb 200-Bushel Club: From left (front row): Don Wiedeman, Colorado; Enver Salman, California; Henry Emken, Illinois; Lavern McCabe, Iowa; Dick Satorie, Nebraska; and Lester Worner, Illinois. (Second row): Leo Vertrees, Indiana; Hershel Williams, Illinois; Julie Fister, Kentucky; Clarence Cunningham, Illinois; and A. G. Schnelle, Illinois. (Back row): Marvin Mallams, Iowa; Fritz Reamer, California; and Ted Woodbury, Kansas.

How some top 200-Bushel Club yields were made

Name and Address	Harvest Pop.	Row Width	Fertilizer N—P—K	DeKalb Hybrid	Yield*
Emanuel Weibert, Wiggins, Colo.	30,577	20″	217-138-180	XL-346	232.21
Harold & Roger Wolf, Morenci, Mich.	26,812	40″	261-139-175	XL-45	187.03
Julius Fister & Sons, Georgetown, Ky.	31,161	33.3″	328- 20- 86	XL-45	208.18
Marvin Mallams, Mt. Pleasant, Ia.	24,650	30″	162- 48- 24	XL-45	205.84
Gillam Bros., Clifton Spgs., N.Y.	22,300	30″	160- 80- 80	XL-315	184.52
Orin Ross, Washburn, Mo.	31,964	38.4″	291-124-124	XL-45	222.14
Leo Vertrees, Elnora, Ind.	25,990	36″	200- 70-120	XL-45	200.24
Owens & Lane, Stantonsburg, N.C.	22,780	38″	225- 50- 50	XL-45	174.65
Peter Cook Ranches, Rio Vista, Calif.	27,666	30″	135-110-248	XL-361	209.44
Lester Worner, Forest City, Ill.	22,997	30″	229-139-102	XL-45	215.84
Elmer Bloemke, Springfield, Minn.	27,230	38″	267- 97- 82	XL-45	192.89
Ted & Geo. Woodbury, Leoti, Kan.	26,273	30″	160- 30-	XL-45	208.37
A. B. Campbell, Fruita, Colo.	27,200	30″	180-150-	415a	212.28
Chas. G. Parrish, Hebron, Ohio	25,785	30″	196- 86-147	XL-45	188.72
Ted Satorie & Son, North Bend, Nebr.	27,876	30″	204- 12-100	XL-45	200.48
Speich Bros., Orfordville, Wis.	21,840	38″	113- 52-232	XL-45	173.14

**All yields mechanically harvested without gleaning and computed as No. 2 Corn.*



Emanuel Weibert of Wiggins, Colorado (inset photo), produced the nation's top measured acre corn yield—232.21 bushels of Number 2 Corn—in the 1967 DeKalb 200-Bushel Club. Weibert thus repeated his feat of the previous year. More than 900 farmers across the country participated. They averaged over 155 bushels per acre, mechanically harvested without gleaning from measured acreages.

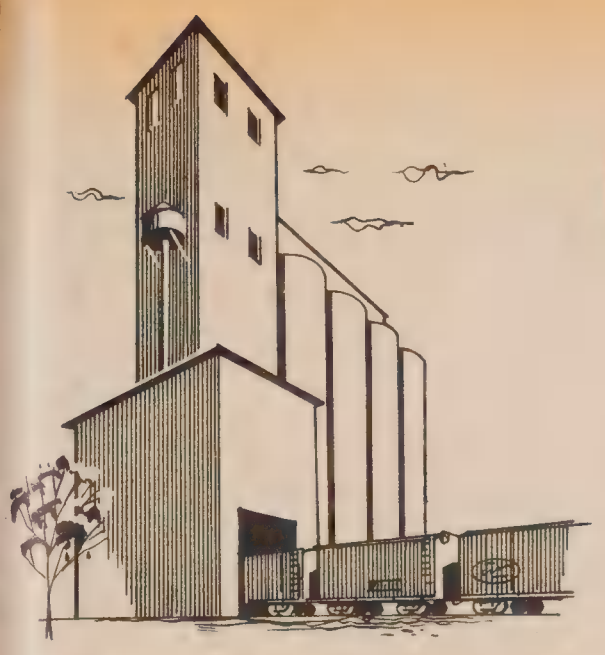
Go all the way with DeKalb XL hybrids—the *Powerplants.*

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MORE FARMERS PLANT DEKALB THAN ANY OTHER BRAND



INCREASED FREIGHT RATES?

by Rodger Beck

Northeast agriculture is again faced with new and far-reaching proposals for increased freight rates. Many of those engaged in the agriculture of the area argue that such increases are unfair, and would drive agriculture from the region to competing areas. The railroads, on the other hand, are trying to promote the increases to cover what they feel to be considerably-higher operating costs. Who is right?

Tax Relief

Upon careful examination, it can be seen that vast amounts of tax relief assistance have been given to railroads in the past few years. In a brief filed by Attorney General Louis J. Lefkowitz on behalf of the State of New York, it was revealed that, "The magnitude of this assistance is indicated by the fact that the $27 million in tax relief received in 1967 by the railroads serving the State was more than 28 percent of the total net income of $95.1 million earned by all Class I railroads in the Eastern District last year."

Even with this aid, the railroads still argue that the increased rates are necessary to improve their rate of return. They feel that escalating wage payments to employees demands a change of rates.

Facts

It's a common argument, however, that the State's agriculture is in as much of an economic squeeze as is the railroad industry. Let's view some facts:

Each year approximately 2000 farmers in the State have given up dairying. This has been going on for more than two decades.

The number of dairy animals in the State now is 15 percent below what it was in the years between 1924 and 1964. Even more startling is the fact that the number of poultry farms decreased from 3683 to 1993 in the years from 1959 to 1964.

"The proposed rate increases would cost New York farmers approximately $1.6 million annually in increased rail transportation costs on farm production inputs alone," argues Lefkowitz. This, coupled with increased costs and reduced profit-taking in many facets of agriculture, would drastically reduce further the number of farmers who sit on the border line between success and failure.

Another point to be made for the side of Northeast agriculture is that it has to compete with the cheaper rates of transportation afforded to the South by federally-subsidized waterways. This forced the southern railways to lower their rates in order to keep pace with water transportation fees . . . a fact that brings glee to the hearts of egg and broiler producers in Dixieland.

Efficiency-The Key

If rates are increased beyond the point at which they now lie, the possibility arises that there will be a move on the part of producers and middlemen to divert their traffic to other means of transportation. Ironically, suggestions have been made to the railroads to increase efficiency and thereby cut down on expenses to avoid spiraling of rates. For years this same suggestion has been made to farmers fearing extinction amidst the crunch of rising costs, and static . . . or even sagging . . . farm prices.

It has been further suggested that consolidation of railway facilities will help attain the suggested increase in efficiency. The consolidation would hopefully reduce labor and operation costs in general to merging companies. Some merging has already occurred . . such as the New York Central and Pennsylvania union to form the Penn-Central.

Proposed Rates

The Interstate Commerce Company Commission as of this writing has suspended for a period of 7 months a proposed increase of 6 percent on feed mixes and 2 percent to 10 percent on other products. But this was coupled with the statement that it was considering a general freight rate increase not in excess of 3 percent. At the same time the ICC would require railroads to file a tariff with only a single day's notice.

Where Now?

As the issue is still being contested, a growing awareness seems to be lighting the eyes of those in the agribusiness community. Much more can be done, however. Farm organizations have for years been dedicating themselves to the betterment of the industry. Their trained and knowledgeable employees have worked hard to improve the lot of the farmer.

The Department of Agriculture in the various states of the Northeast have also done yeoman service in standing up for farmers in this battle.

Farmers need to encourage their organizations to fight on the freight-rate front . . . and an organized scrap is the only kind that will pay off.

Without vocal backing and stimulation from farmers, both farm organizations and governmental people find it difficult to carry on the fight. This is important, and the stakes are high!

NEW-TYPE SAW MILL

Howard W. Miller, Wyoming County District Director, tells us of two young men from Tunkhannock, Pennsylvania . . . John Davenport and Henry Kalinowski . . . who have invested in a "Swecan Band Saw Mill" and equipment. The partners bought the French-made mill in Montreal (still in its original crates shipped from France) . . . but the mills are now being manufactured in Canada.

The business started in 1960 with the purchase of a circular saw mill. By 1964 the partners realized that they needed more volume. Having heard of the band saw, they investigated, and in 1965 set up their new mill on a 100-acre farm at the intersection of Routes 92 and 6, an ideal location for trucks to pull in and unload. Since then they have added new sheds, covered the outside sorting table, built the office, and installed scales.

The band saw increased production 2000 feet per day, and the very fine sawdust could be used as a specialty product for meat packing cold storage rooms and meat cutting room floors, etc., but the demand for bedding takes it all.

The shredded bark goes into a collector, is elevated into a high A-roof building, where trucks roll in and load. It is also used for bedding by the area farmers.

The partners buy standing timber, and then contract the cutting of the trees to timber crews. A lot of the lower-grade lumber is sold for pallets, the chips to a hard-board plant. With improved chemical preservation of wood and better laminating techniques, wood usage is making a comeback in building.



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With Our ADVERTISERS



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The five Bierstine Brothers of Pine Island, New York, operate 425 acres of muckland . . . with onions and celery their major crops. They report excellent results from tailor-made Armour fertilizers (Vertagreen) and herbicides, in use on this farm for many years.

❖❖❖❖❖

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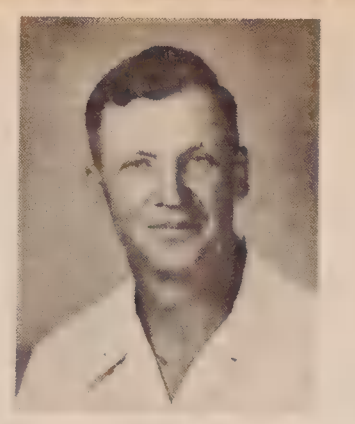


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Gayway Farm Notes

by HAROLD HAWLEY

PUZZLED AGAIN

No two seasons are alike, and in no two seasons do weed sprays seem to behave the same. Even 2,4-D doesn't always perform up to expectations. This year the performance of Atrazine was most puzzling. Some fields which were sprayed ahead of the rainy spell just had no control until along in July. Then when warmer nights and sunshiny days came along, the weeds just vanished. I suppose it merely means that when plant growth was too slow the amount of Atrazine being absorbed was just too little to be effective.

Up and down the roads, nutsedge . . . or nut grass or river grass . . . as you prefer, seems to be the number one villain. It is much harder to control than quackgrass. Even heavy spray applications do not always do the job, and apparently a new crop can grow next year even if the plants were killed this year. Probably the nuts aren't killed and germinate the next season.

Split applications of Atrazine before and after plowing, and before plowing and after planting, all showed fine results . . . in some places. What is hard to come by is a concensus as to what really worked best, as a guide for next year.

The tendency seems to be to do as we did with 2,4-D. It was used as long as folks could get away with it. Then when giant foxtail or nutgrass prospered too much for lack of competition from broadleaf weeds, something different was indicated. This escalation of the war on weeds cost money as better spraying equipment and more expensive materials were needed. Then we began to need two applications in some cases. Next step, of course, was to turn to even more-expensive, more-effective concoctions.

Changes

There was a time when it was no contest between the cost of using 2,4-D and of cultivating a field. The cost of materials and application is now making the cost of cultivating competitive again. Of course, in the meantime two things have changed. First, the acreage of corn on many farms has so increased that to get over the ground with timely cultivations would be difficult. Secondly, the widespread infestation of fields with nutgrass and foxtail has made mechanical control all but impossible.

So here we are, after several years of chemical weed control, with more fields up and down the road eligible for the title of problem fields. We have become more dependent on higher-priced, heavier applications of chemical weed control, which in spite of everything are still a long way from being consistently effective. We have complicated the problem of following corn with something else due to residual chemicals, especially when we end up spraying a field a second time in order to get a kill. I'm sure this must be progress . . . but sometimes I'm not quite sure.

In fairness we should reflect back a few years to the cornfield yellow with mustard, choked with quack, and parched for water being taken up by pigweed and redroot. Such fields are hard to find now, and yields have increased because of better weed control (among other reasons). So now, it's look and listen and read the ads between now and next spring to find out what new miracle herbicide is available to solve all our weed problems. That'll be the day!

SPECIALIZATION

One of the important steps not yet taken by most farm organizations is to recognize that they too must decide whom they will serve, and then gear their program and efforts to that group. In short, soon or late, they must decide to specialize.

Most farm organizations have been more or less for all farmers. When dues were as nominal as they historically were, anyone interested could join. To do the things some are attempting to do will cost real money. This will mean sizable dues. At some point the dues will begin to separate farmers into those large enough to get their money's worth out of such dues, and those too small to justify such a dues schedule.

No one has yet had the courage to stand right up and say that his organization is going to be for **commercial** farmers only. On the contrary, officers seem to be unbelievably touchy about charges that their outfit is for "just the big fellows." As we look down the road, I'm going to have to guess that at least two or three of the general farm organizations are going to have to decide for themselves whom they will serve. Next step is to summon up courage to say which group of farmers they will work for.

This should be no embarrassment to anyone. It's clear as anything that the needs and interests of large and small farmers are greatly different, and specialized

(Continued on next page)

organizations to serve **either** the large or the small (the commercial and the non-commercial) is the natural next step.

TIME, MOTION, AND ACCOMPLISHMENT

We ran a little over 100 acres of alfalfa into the silo in jig time in spite of excessive rain here in June. We had about 50 acres left to bale for the heifers. The total days and man hours needed to turn that hay and finally bale it and get it in the barn were about the same as for the 100 acres put in the silo. Of course, quality-wise there was little comparison, because the ensiled stuff wasn't ever badly hurt by the weather. We aren't set up for it yet, but one of these days our calves and heifers will eat haylage and corn silage fed automatically just as our cows do . . . or someone else will be raising our replacements!

The only real place for baled hay in our setup is as an occasional feed for heifers running in corn fields in the winter who need something to eat following a heavy snowstorm.

IT'S ALL RELATIVE

Seems that as one travels around a little, every group of farmers has in it one who, subtly or otherwise, lets you know that he is a big operator. A big operator apparently is merely the guy who farms a little larger than his neighbors.

Sometimes we have to pause to get this in perspective. There are some truly big businesses here in the Northeast . . . fruit, vegetables, and poultry, and probably some others. However, there seem to be areas around the country where large size is rather commonplace. Of course, acreage-wise some cattle ranches and wheat farmers make anything around here seem pretty small.

Some of the fruit and vegetable operations in Florida and Texas and California almost stagger the imagination. Even dairies may run to numbers beyond our experience here in the Northeast.

Guess we just got to thinking about this a few weeks ago when we heard a fellow tell how many cows he milked and how many cows a man on his place could keep. A fellow in the crowd allowed he preferred to put it the other way around . . . not how many cows a man could keep, but how many cows it took to keep a man. He really had a point there. It shakes one a little to think that it may take several sections of wheat land to keep a family, or that about half a county may be required to keep a family on some of our range land.

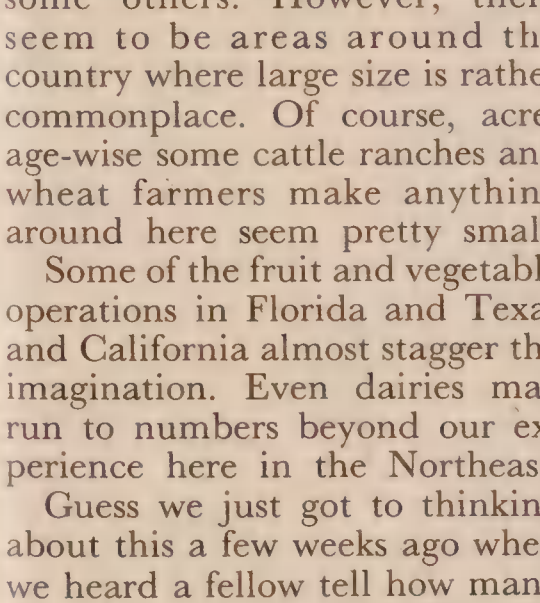
A SLIGHT CHARGE

A trip to the golf course for a round or two naturally costs a little. Everyone recognizes that the man who provides the place to play is entitled to charge for the use of his facilities. Likewise, when we drop in to bowl a couple of games we expect to pay. Next, the same man decides to go hunting and expects the landowners of the state to furnish for free the land over which he will hunt.

When a high percentage of the population lived in the country and hunted at home or nearby there was no problem. Now, in a state like New York, where farmers represent less than 2 percent of the population, it is utterly unrealistic to think that they should feed the game and then turn over the hunting privileges on their lands absolutely free to the other 98% of the population.

No fair-minded person minds paying for his recreation except when it comes to hunting and fishing. I'm sure the attitude is a hangover from the time when everyone was so close to the land that the right to hunt was taken for granted. It can no longer be regarded as a "right."

In Texas the law specifies that the landowner and not the state owns the game. I have no illusions about getting our laws changed in this way. What I do think is that we are being somewhat naive if we continue to provide free hunting and fishing privileges to strangers who can well afford to pay for their recreation.



★ **SPECIAL 90-DAY OFFER:** To Dairymen Milking 30 Cows or More —



KEEPING EVERY COW IN PRODUCTION is every dairyman's payoff goal. And Anchor's SOMATO-STAPH helps you do just that. Vaccinate the whole herd twice yearly for Staph. Mastitis prevention for only 65¢ per shot (in 50 dose vial lots). No milk withholding! Doesn't this program beat trying to treat mastitis with messy quarter infusions for days, even weeks, while you're dumping all the milk?

GIVEN! 10 Doses SOMATO-STAPH • $7.00 Value

To Help You Put 30 Cows On Anchor's SOMATO-STAPH Program; You Buy 50 Doses, We Give You 10 Doses; And Guarantee Lower Staph. Mastitis Incidence, or MONEY BACK!

How many mastitis products have you tried in your time? How many really worked?

Now here's a revolutionary new concept, Anchor's SOMATO-STAPH, that hundreds of dairymen say **does work!**

And more, we guarantee SOMATO-STAPH will reduce your Staph. mastitis problems, or **money back.**

So, to encourage you to start your whole herd SOMATO-STAPH mastitis prevention program now, we'll give you 10 doses with purchase of 50 doses, (anytime before Nov. 1, 1968) which is enough vaccine for 30 cows through the first 6 months.

That's a big 20% discount in your pocket. And, every cow you prevent flaring up with problems or high leucocyte counts puts $19.63** more in the same place. Not to mention a loss of about $200 per cow on every cow you have to ship. Fair enough? So you well may wonder, how can we be so sure about it?

WHY SOMATO-STAPH IS DIFFERENT

Prevention beats treatment! That was Anchor's broad concept. So our researchers zeroed in on *Staph. aureus* organisms, which long have been known as chief trouble makers in about 60% of all mastitis problems. After several years of development, they produced a SOMATIC ANTIGEN bacterin from lysed whole cells of mastitis significant *Staphylococcus aureus* organisms.

Because it is a somatic antigen, a giant field test on 500 cows revealed that SOMATO-STAPH is more readily available and many times more effective than Staph. toxoids, Staph. strep bacterins and Staph. antitoxins. Moreover, it produces a high level, rapid antibody protection against *Staph. aureus.*

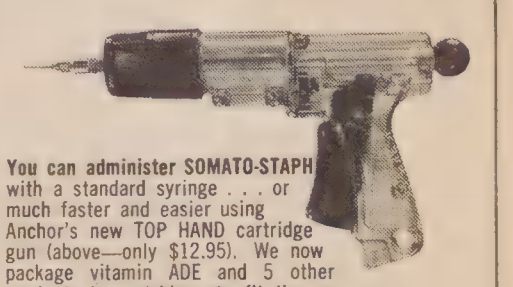
Since then, thousands of dairymen all over America have tested Somato-Staph in their own herds. Results were so successful, from this evolved Anchor's . . .

WHOLE HERD SOMATO-STAPH PREVENTION PROGRAM

1. Inject 5 cc initial dose, intramuscularly.
2. Repeat booster shot in 14 days.
3. Booster at 5 to 6 months later.
4. Vaccinate heifers at 6 months.
5. COWS MAY BE VACCINATED ANY TIME, INCLUDING LACTATION PERIOD, WITHOUT WITHHOLDING MILK!

Any more questions? See your Anchor dealer. He can probably tell you about good results of other dairymen you know. Whether you've already adopted SOMATO-STAPH in your herd health program . . . or whether you're still a "doubter," this special offer should help you get with it . . .

- **20% off to put 30 cows on the Somato-Staph program now.**
- **Plus our guarantee of reduced Staph. mastitis incidence in your herd, or all your money back!**



You can administer SOMATO-STAPH with a standard syringe . . . or much faster and easier using Anchor's new TOP HAND cartridge gun (above—only $12.95). We now package vitamin ADE and 5 other products in cartridges to fit the gun. Buy one and you'll agree this is the best ever for fast, accurate, automatic injection work.

ANCHOR'S MONEY BACK GUARANTEE

Assures you complete satisfaction or money back, when your animal health problem is correctly diagnosed and Anchor's products are administered properly, and in accordance with package directions. Return the unused portion within 90 days to your Anchor dealer and he will refund the full price you paid. We will repay him .

TAKE TIME (8) OBSERVE LABEL DIRECTIONS

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FOR YOUR 10 FREE DOSES ANCHOR SOMATO-STAPH

Dairyman's name_____

Address_____ State_____

I am vaccinating my herd () cows, with the initial and 14 day booster vaccination of Anchor SOMATO-STAPH. I have bought_____ doses from dealer (below) and have been given ten doses_____ Free.
(number) (Serial numbers)

Validated by Dealer: _____
Dealer Name

AA98 Dealer Address

(This coupon good for 10-dose offer.)



TIME CLOCKS FOR COWS

by Amos Kirby
New Jersey Editor

WHILE cows have not learned how to operate a time clock, when it comes time for milking they have a built-in sense that they like to have that task performed at regular hours. Regular hours for doing the chores on a farm results in what is known as management, and it can be good or bad.

Regular hours of milking means much to those cows who are looking forward to the few minutes in the milking parlor or the stall. If the milking hours are 6:00 in the morning and 4:00 in the afternoon, this is a schedule that finds the cow with a pleasant disposition. Animals have a better sense of timing than is usually given them, and to date it has been overlooked as a part of good farm management.

MINI-DRUMSTICKS

Mini-drumsticks is the name of a new food item that has originated in the big broiler-growing area of the Eastern Shore. A mini-drumstick is the second joint of the wing of a nine-week broiler weighing about four pounds. It was developed by a Delaware poultry plant, and has a place in the hors d'oeuvre group of delicacies that are served at cocktail parties and the like. In a test-marketing at the Waldorf-Astoria Hotel, New York City, to a group of reporters, cameramen and food editors, the mini-drumsticks were the talk of the day. They are now being packaged for home, store, restaurant, and institutional use.

The wing tip is clipped off and the meat on the wing cooked. It is a most tempting item, and its novelty is making a new approach for an item that has had a limited market in the past.

MONEY OUT OF CORN

Silage will be the best market for corn in 1968 if one is feeding livestock. That goes for the dairyman as well as the man who is feeding cattle for a profit. Put it in the silo; if the silo is not large enough to hold the crop, then build a bunker or dig a trench. This is the advice of Ivan Crouse, dairy specialist in the counties of Salem, Cumberland and Gloucester. It can be duplicated anywhere in the Northeast. It even pays to make silage of all the corn crop and then turn around and buy corn for feeding. Corn may be one of the cheapest feeds in the months ahead. Corn silage is going to be a good item to own, looking ahead to the spring and early summer of 1969.

One can almost double the protein content of silage by adding 10 pounds of urea per ton. By spreading the urea on the chopped corn before it is unloaded in either the high silo, trench, or bunker, it will be mixed with the corn to insure good distribution.

Popular

Trench silos are gaining in popularity in New Jersey. They are cheaper to build than uprights. The dirt removed from the trench can be used to build the side walls, and in that way increase the capacity. Elmer Pettit, Woodstown, has been so well pleased with his trench silo (dug in 1967) that he is adding a 2000-ton capacity trench to supplement his existing trench and upright silos. Silage covered with plastic will keep through the spring and early summer months.

Mr. Crouse recommends having all forage tested for its feeding value. In 1967, many dairymen had problems maintaining milk production due to low forage protein content. It required weeks to get production level back even after adding supplemental protein. Forage testing at the Rutgers Agricultural College provided dairymen with an accurate basis on which to add the supplemental high protein concentrates.

Frank Wright, dairy specialist at the College of Agriculture, lists brewers' grains and soybean oil meal as two highly-recommended concentrates to balance out the diet for dairy cattle.

Corn silage is listed as one of the low-cost feeds for replacements, and it is ideal for beef cattle. A prediction . . . the time is here for year-round confinement of dairy cattle, with either low-moisture hay-silage or corn silage the basis for the production of milk.

COMMUTERS HELP

Commuting in reverse is helping to solve the farm labor problem in many parts of New Jersey. The commuters are men and women from the cities who come in busses and in their own vehicles to harvest crops.

This practice has shown a big increase this year. Late figures from the Farm Placement Service of the Department of Labor show that as of June 30 there were 8370 commuters, up from 6230 at the same date last year, or 34 percent increase. These 8370 commuters constituted almost one-half of the 17,300 workers employed in harvesting crops.

Workers are paid maximum wages, and earnings range from $10 to $15 per day, depending on hours worked and skill shown shown.

TENSE SITUATION

The tense situation between Campbell Soup Company and its employees caused much anxiety among New Jersey tomato growers. The Company notified their 200 or more growers that if a strike prevented the growers from delivering the crop, the Company would determine the growers' cost of production, plus a reasonable profit, and pay for the tomatoes.

CONCENTRATED SPRAY

The new concentrate sprayers are getting a second look from practical and economy-minded growers.

A concentrate sprayer with a 90-gallon tank covers as many acres as a 500-gallon tank, uses fewer pounds of the pesticide, and costs 25 percent less. Results are what counts. After four years of initial work with the concentrate sprayer, growers are joining the parade.

Filling 500-gallon tanks with water can be a problem. Filling a 90-gallon tank may not speed up the actual spraying, but it is much easier to move around and can get into closer quarters than

(Continued on next page)

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On the total electric farm, electricity feeds the cows, lifts the bales, unloads the silo, and cleans the barn. In countless ways, it reduces your need for hard-to-get, expensive manpower—and saves you money. When electricity does the work, you have more time to devote to increasing profits. Ask our farm service representative for more information or help in planning electrical mechanization. Or any other way to put electricity to work on your farm. Call him at our nearest office.

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the standard dilute sprayer.

The yardsticks that have developed in New Jersey orchards look like this: (1) One man driving a tractor and the econ-mist sprayer can spray 10 acres in two hours; (2) the dilute sprayer calls for upwards of 3000 gallons of water on those 10 acres; (3) There is a saving of one-third in fuel to operate the concentrate sprayer and original cost is less. Dilute sprayers start about $7000 and the concentrate at about $5000. (5) Works well on both apples and peaches; and (6) eliminates much of the drip and drop of the standard sprayer and provides equal control of major orchard pests.

HEADS NEW DIVISION

The Division of Rural Resources, newly created within the New Jersey Department of Agriculture, went into operation August 1. Heading it is Francis A. Raymaley of Alloway, former Director of the Department's Division of Markets, and a member of the American Agriculturist Foundation.



Francis Raymaley

The present Soil Conservation Committee and Rural Advisory Council will become parts of the new Division, which will provide services designed to strengthen the future development and well-being of the rural areas of the State. Working in close cooperation are the other State agencies and the College of Agriculture and Environmental Science at Rutgers.

A TIMETABLE

New Jersey College of Agriculture dairy specialists recommend that a dairy heifer freshen at two years of age. Studies along this line, according to Specialist Edward Oleskie, show that heifers freshening at 2 years of age produce more milk in an average lifetime than those freshening at a later date. If the heifer has size and is well developed one need not hesitate on the 2-year period.

DETERMINE RIPENING

A South Jersey pea grower lost $1000 in one day because of extremely high temperatures. This grower's experience brought to the front the fact that high temperatures speed up maturity . . . and in this case the peas hardened to the point that they were unacceptable.

Sweet corn growers experienced the same condition. Four hot days in July, with 90 to 96 degrees, matured the corn ahead of schedule and upset the growers' marketing plans.

A yardstick showing what high temperatures can do: 90 to 95 day temperature, and an 80-degree night temperature for one day can mature corn about one week in advance of a normal daytime temperature.

One corn grower reports that in periods of high temperature he has had 90-day corn mature in 60 days. In another extreme, with cold weather in the spring, it has taken 90 days for a 60-day corn to mature to the proper market stage.

Cool weather in North Carolina this year delayed the maturity of blueberries. At the same time, high temperatures in New Jersey matured the same varieties a week to ten days earlier, resulting in increased competition in the market, and lower prices during a period when the market was over-supplied.

PUSHES UP YIELDS

Lime is a great stimulator when it comes to stepping up yields, says Dr. Roy L. Flannery, soils authority at the College of Agriculture.

Lime does two things, both of which play an important part in higher yields. It helps release nitrogen and other plant nutrient elements from the organic matter in the soil; it stimulates that sluggish element of phosphorus, and maintains soluble phosphate fertilizer in a more readily-available form.

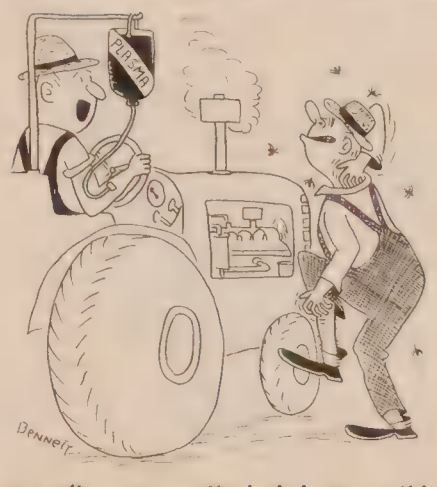
Lime puts new life in the soil microbe population. These billions of tiny organisms break down plant residues into soil-building organic matter. This residue and the calcium supplied by lime improve the physical condition of the soil.

NEW PROGRAM

A totally-new merchandising sales promotion and seed identity program is being launched by New Jersey Crop Improvement Association.

The Association has adopted the name "MIDSTATES" as a promotional trade name for its grain seeds, the first use of a trade name by the Association. The move was prompted by a need to protect closed pedigrees on new seed hybrids, and also to define the trading area in which the Association functions best. This will facilitate the sale of seeds and widen the market area.

The Association, which distributes seeds under the name New Jersey Certified Seed Growers Cooperative Association, processes seeds that result from research done by agricultural colleges. Before being sold they are tested under actual farm conditions.



"The mosquitoes are pretty bad down on this river bottom, but I've got a system to keep ahead of 'em."



Fast manure!

Jamesway's 23-ft. per minute speed gets all the *solids and liquids* into the spreader. You can't buy a faster operating barn cleaner! Big J chain barn cleaner gives you more value, too. Here's why:

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Extra-heavy spur gear drive! Unitized drive provides non-slip, most efficient power transmission.

Rugged design! All the way through — to keep going longer with less maintenance.

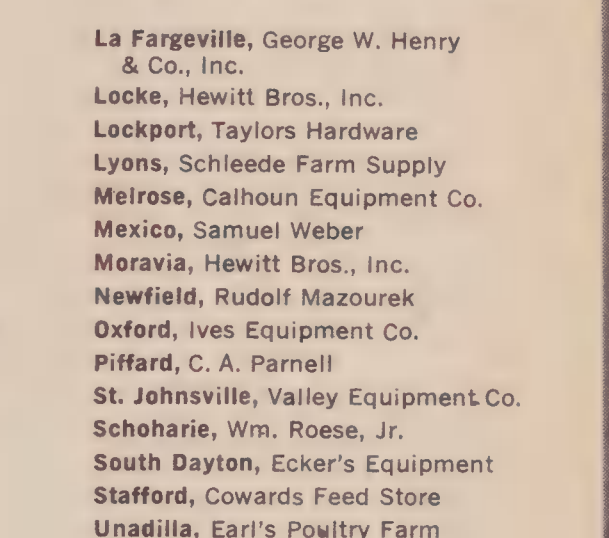
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Gouverneur, Jones Farm Supplies
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Hamburg, Abbott's Richardson Milling Co., Inc.
Holcomb, Coakley Dairy Supply
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La Fargeville, George W. Henry & Co., Inc.
Locke, Hewitt Bros., Inc.
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Piffard, C. A. Parnell
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STAR FARMER

Jack W. Gibbons, a twenty-year-old dairy farmer near Clymer, New York, has been named to receive the Future Farmers of America Star American Farmer Award for 1968. He and three other young farmers from other parts of the country will each receive a $500 cash award at the FFA annual convention in Kansas City in October . . . where one of them will be named Star Farmer of America and will receive an additional $500.

Jack is a full-time farmer, with responsibility for the operation of a 214-acre dairy, featuring a milking herd of 54 purebred Holsteins. Because of his father's ill health Jack has managed and performed most of the work of the farm for the past three years. A formal agreement has been made between parents and son for Jack to complete the purchase of the farm when he reaches age 21.

Under Jack's management annual milk production of the dairy herd has increased from 10,936 pounds per cow in 1964 to 13,243 pounds at present. Hay yields have been increased 50 percent, and he has been able to cut feed costs as percentage of milk receipts from 33 to 26 percent.

Jack has made extensive improvements on the home farm land and buildings, including the recent construction of a new silo.



Basil (left) and Mike Gillam.

TOP CORN GROWERS

THE Gillam Brothers . . . Basil and Milo ("Mike") . . . of Clifton Springs, New York, headed the Empire State list of top yields in 1967's corn yield contest sponsored by DeKalb. The official figure was 184.52 bushels of dried shelled corn from a measured acre . . . and only one of their many corn fields went below 150 bushels per acre. Basil says, "We figure to break even at 100 bushels per acre, if **all** costs are considered . . . and the profit is from there up."

The Gillams do more tillage than some, but less than others . . . generally 3 or 4 times over with a disc or drag after plowing. On most fields 120 pounds of actual nitrogen (liquid, but not anhydrous) are plowed down, then 400 pounds of 10-20-20 dry fertilizer are applied with the precision-type planter . . . at a planter speed of four miles per hour, and using a 24-cell planter plate.

Less Nitrogen

The "nitrogen-throttle" is pulled back to 90 pounds of N on fields . . . usually sod . . . where manure has been liberally spread. There are 75 milkers, plus young cattle, on this place . . . boasting a recent DHIC herd average of 13,975 pounds of milk.

In 1968, Basil and Mike used narrow press wheels on their 6-row corn planter for the first time . . . pushing the kernels firmly into the seed bed just ahead of the device covering the seed with earth. Thirty acres per day can be planted without strain when the weather cooperates. Another "first" on this farm for '68 was the use of Diazinon as a soil insecticide . . . primarily against cutworms.

Plant Population

Final plant population target is around 21,000 per acre . . . all corn is in rows 30 inches apart. No plans at present call for narrowing the row interval.

On sod fields expected to be "grassy," the Gillams put on two pounds of Atrazine per acre, custom-applied with the nitrogen solution. Then they follow up with 1.25 pounds of Atrazine plus oil at corn seedling emergence. Where broadleaf weeds are the only problem, they use 2,4-D at the spike stage just before the first leaf whorl forms. Last year, all corn was cultivated once when it was 8 to 10 inches tall.

Corn for grain is harvested with an IH 403 combine having a 3-row corn head. It's fitted, by the way, with a comfortable cab into which air is filtered . . . a real man-saver on long working days.

The Gillams have their own dryer . . . a continuous type rated at 130 bushels per hour (starting at 30 percent moisture). It will take around 40 acres of the 150 acres grown in '68 to fill the 20×60, 14×50, and 12×40 silos . . . the rest will rattle into the grain bins.

The Gillams are shooting for top yields again this year . . . and every year. — *GLC*

YEAR 'ROUND

At least 25 events are scheduled at the New York State Fairgrounds at Syracuse for the last half of 1968. Far from being used only during the Fair itself, the facilities host many organization meetings and public events throughout the year . . . including both agricultural and urban groups.

In recent years, use of the Fairground buildings throughout the year has grown steadily.

FARMER AND LAWYER

Single copies of publication number 478, entitled "The Farmer and The Lawyer," are available free of charge to residents of New York State by writing to Agricultural Economics Department, Warren Hall, Cornell University, Ithaca, New York 14850 . . . or asking their county agent for a copy.

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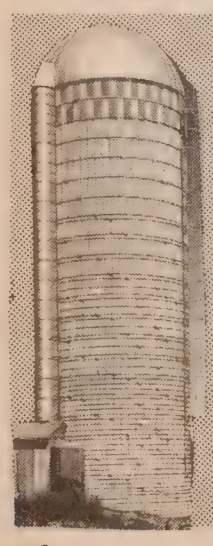
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by Robert Clingan

BEAUTY IS EVERYWHERE

When Michelangelo was once asked to share the secret of one of his great works of sculpture he replied, "Within that block of marble I saw an angel imprisoned. I simply cut away the necessary stone to set the angel free." There was beauty within a block of marble, but only Michelangelo had the artistic imagination to see it there, and the skill to set it free.

This is the characteristic of any great teacher. He sees the beauty of character and personality, mind and skill, in the life of an unassuming person who seems simple, plain, and prosaic to anyone else. Teachers are sometimes asked, "Why are you wasting your time teaching? Could you make more working for industry, or government, or a Foundation?"

Make more? For myself, perhaps . . . but what about the joy of seeing persons mature and children develop their hidden talents which make them known and useful? Where would I get satisfactions comparable to that? These are the kind of answers we easily gather from the great teachers who live among us and unlock the hidden beauty in the lives of our children.

Perhaps the great interpreter of the people of Asia is the American novelist, Pearl Buck. Recently she has written a book called "The People of Japan." After analyzing Japanese character by reviewing their history and the effect of their geography . . . an island people living under the threat of violent forces of nature . . . she pays great tribute to their appreciation of beauty. In a very striking manner she describes how a Japanese created a shape of a heron from a twisted branch of some desert plant when his people were forced to live in the desert of the American Southwest during World War II. When Pearl desired to have it for her own he refused to part with it; it had become for him the symbol of the day he came out of the pit of despair. He had thought of how he would die because his life had become devoid of beauty. Seizing a kitchen knife, he freed from what he saw as a dead branch the shape of a stately heron. In this act he discovered that beauty is everywhere.

How much richer our lives would be if that discovery became ours. Even when beauty does not stand on the surface, it does remain within all that surrounds us, if we have the imagination to see it and the skill to set it free. Thank God for the gift of beauty and the power both to apprehend and create!



Model Room at Progress Center replica of a nuclear-electric power plant.

NUCLEAR POWER

Adventure beckons visitors of all ages to Niagara Mohawk's new Nine Mile Point Progress Center near Oswego, New York, for there they can go touring the spheres of energy and explore pathways to tomorrow's power. The Center offers Upstate New Yorkers an exciting, imaginative experience . . . an entirely different kind of show, where visitors see a story unfold on nuclear-generated electricity. It's open Tuesday through Sunday from 10:00 A.M. to 4:30 P.M.

Significantly, the Center is within view of Niagara Mohawk's new Nine Mile Point Nuclear Power Station, which itself will be a milestone in upstate energy when it begins operating in 1968. Most of the Center's programming is tuned to the concepts and mechanical principles that will drive the station's 600,000-kilowatt turbo-generator.

Visitor Tour

The key attraction for visitors is a unique, three-part tour. It begins in the Center's Theatre, takes audiences through a room in which a large scale model of a nuclear power plant is demonstrated, and concludes dramatically in the Fission Chamber, where the very elements of atomic power are portrayed. Each step of the tour is explained in everyday terms which everyone can understand.

The Center is on a wooded knoll next to Lake Ontario, and includes adjacent picnic facilities. Its lobby-reception area contains a selection of energy-keyed exhibits, displays and photomurals. The fossil-rich rock of which the building is constructed, quarried at the Helderberg Mountains at East Berne, N.Y., is more than 400 million years old and is recognized for its geologic importance.

Special tours by schools, colleges and other study groups may be arranged by calling or writing Mr. Ralph Annunziata, director, Niagara Mohawk Progress Center, P.O. Box 103, Lycoming, N.Y. 13093. Tel. 343-5121 or 474-1511 (Area Code 315).

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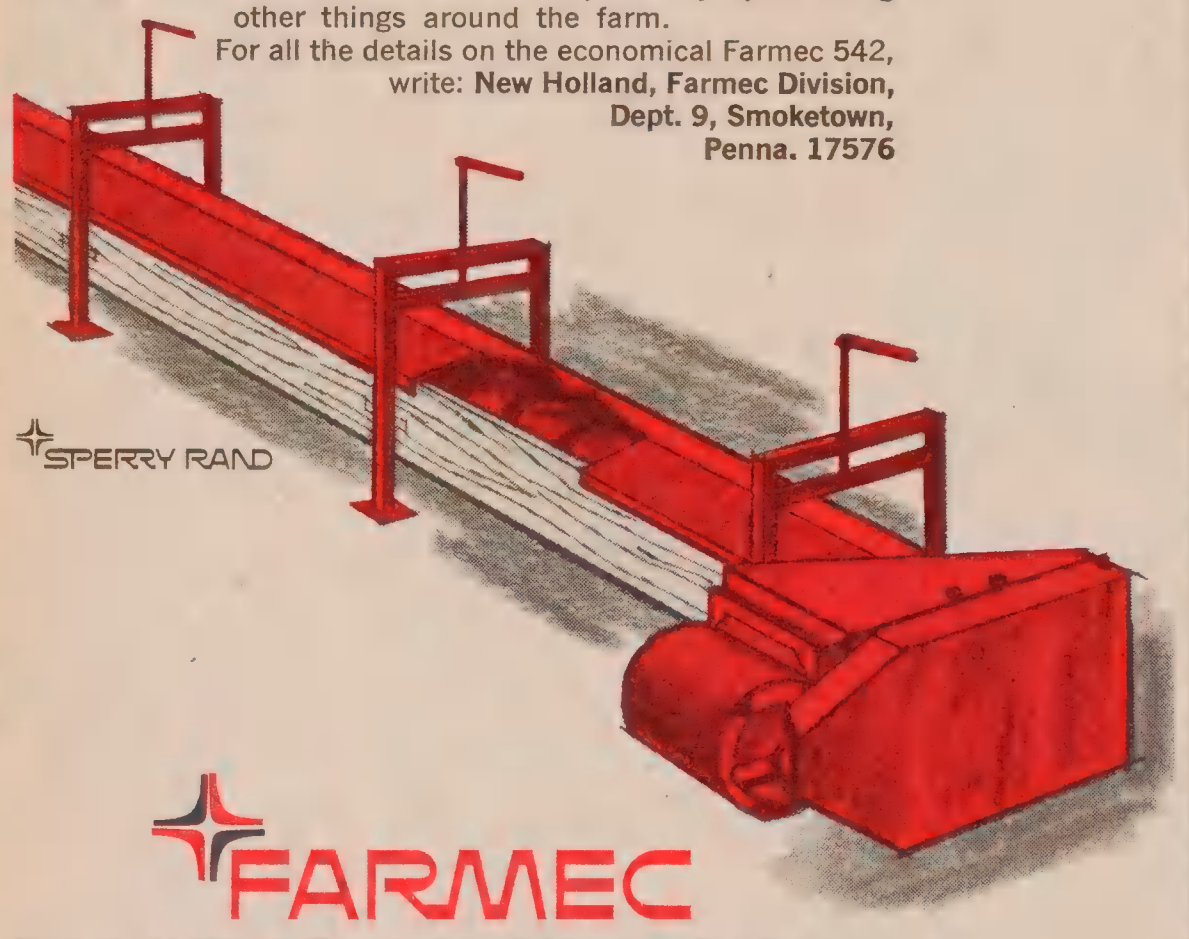
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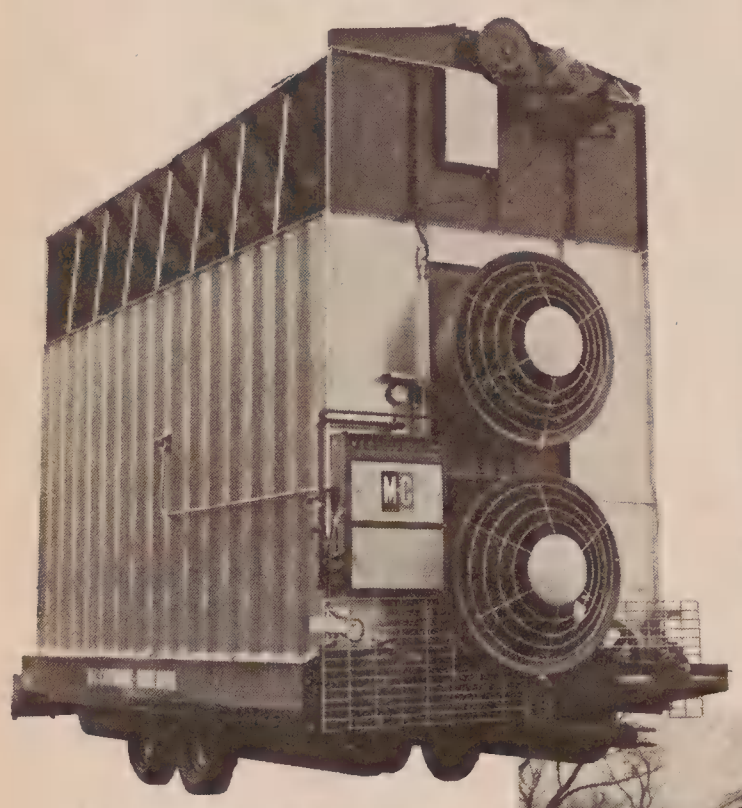


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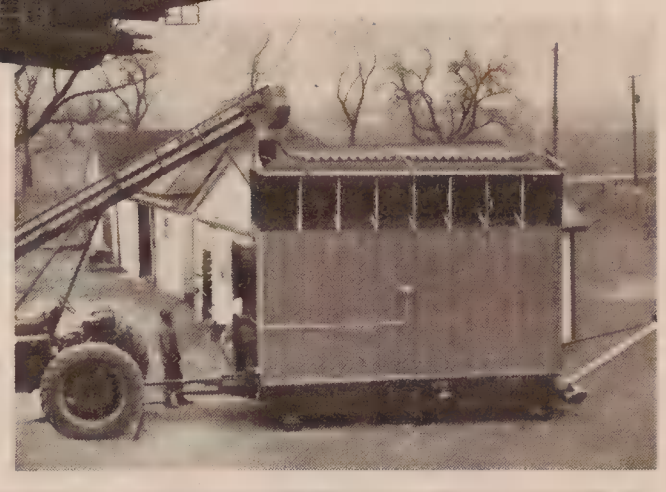
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LAST TOURS FOR 1968!

October will be a busy month for American Agriculturist and our travel agents, the Travel Service Bureau of Needham, Massachusetts, for we have three **Fall Foliage Tours** through New England which leave October 3, 11 and 19, an **Aloha Week Hawaiian Holiday** starting October 12, and a trip **"South of the Border" to Mexico** beginning October 26.

Like all American Agriculturist tours, these will be escorted trips, and the all-expense tickets include everything — transportation, scheduled sightseeing, first class hotel accommodations, baggage transfer, all meals and tips. You will be well looked after and have no travel worries of any kind. We hope you decide to come along with us on one of these fine fall vacations.

For several years we have not had a Fall Foliage Tour, and many of you readers have asked for one. This year we have scheduled three, so you can choose whichever date is most convenient. We will travel in deluxe sightseeing buses with clear, untinted glass to permit photography through the windows. Each tour is nine days in length, and the cost from Albany back to Albany is only $299.

Our trip begins with a drive through the beautifully wooded Berkshires, and our first night is spent in Northampton, Massachusetts. The next morning we visit famous Old Sturbridge Village, recreation of an authentic New England farm village of the late 18th Century.

A fascinating part of our trip is the time spent in the historic Cape Cod-Boston area. We'll see Plymouth Rock, Pilgrim Hall, Old Town House, First Church, and many places associated with the Puritans. We tour Cape Cod, including such colorful places as Hyannis Port, Barnstable, and Sandwich.

At Lexington and Concord, we walk along quaintly crooked streets that once were cow paths and see Faneuil Hall, Paul Revere's House, Old North Church, the homes of Longfellow and Lowell, Harvard College and other famous sights. Leaving Boston, we stop at Salem with its Gallows Hill, Witch House and Hawthorne's "House of the Seven Gables."

We spend a night in Portland, Maine, and the next day drive past beautiful Sebago Lake on our way to New Hampshire's White Mountains region. Here we tour the "Notches" — Franconia Notch with its famous profile, "The Old Man of the Mountains," Pinkham Notch, Tuckerman Ravine, and Crawford Notch. We'll also see Mt. Adams, majestic Mt. Washington, and take a ride up Cranmore Mountain on the Skimobile.

In Vermont, we visit the Maple Grove Museum, the state capital of Montpelier, and Vermont Marble Company's display at Proctor. Nothing quite matches a New England autumn, and these trips are packed with both natural beauty and unforgettable history.

Paradise of the Pacific

It's always a wonderful experience to travel with American Agriculturist, but everyone who has gone to Hawaii with us says, "That's the perfect vacation!" As a prelude to our Hawaiian Holiday, we spend an interesting day in Oregon among the beautiful Cascade Mountains. We'll drive up Mount Hood to Timberline Lodge and then along the Columbia River Gorge with stops at Bonneville Dam and Multnomah Falls.

The next morning we board our Aloha jet and fly smoothly across the Pacific to Honolulu. After receiving a colorful lei of tropical flowers and a welcome to the Islands, we leave for Hilo on the **"Big Isle" of Hawaii.** Hilo is also called the orchid capital of the world, and we will visit a nursery where these exotic blossoms are grown.

This island's scenery ranges from the loveliness of palm-bordered black sand beaches to the grandeur of its restless volcanic

(Continued on next page)

Last tours

(Continued from page 28)

peak, Mauna Loa, towering nearly three miles above the sea. We spend a thrilling day in Hawaii National Park, with its giant fern forest, sulphur banks, extinct and steaming craters and lava tubes.

On our way to Kailua on the Kona Coast, we pass through famous Parker Ranch, one of the largest in the world, and see Akaka Falls, highest in Hawaii, in its beautiful tropical setting. While at Kailua we'll also visit the City of Refuge, Captain Cook's Monument, and a coffee mill where the world-famous Kona coffee is produced. Kona waters are famous for marlin and other big game fish; arrangements will be made for any who want to try their luck.

The **Valley Isle of Maui** comes next. Here we see "The Needle," a fern covered spire rising abruptly more than 2,000 feet above the valley floor. We'll also visit the ancient whaling center of Lahaina and tour the Maui Pali Coast.

From Maui we go to **Kauai, the Garden Isle,** where we find a happy combination of the relaxed rural way of life and all the modern conveniences. There is just one traffic light on the entire island! Comfortable limousines will take us to see the massive walled gorges of Waimea Canyon that rival the Grand Canyon in exquisite coloring. We'll pass fields of waving sugar cane and pineapple, rice paddies, taro patches, and endless flowers.

Another day we take a delightful boat cruise on the Wailua River to a lovely fern grotto. Natives entertain us along the way with songs and legends of the River. On Kauai, our hotel is located on one of the loveliest beaches in the islands, and we'll enjoy our leisure hours to the utmost.

At no time during the year are Honolulu and Waikiki on the **Island of Oahu** more fascinating than during Aloha Week, and our hotel is situated right on the famous Beach! Special activities depicting the history of Hawaii and the South Pacific are scheduled through the week.

One day we take a circle tour of Oahu with stops at Sea Life Park and the Polynesian Cultural Center. Another day we will visit Pearl Harbor and see the sunken ships still there since the infamous attack by the Japanese in 1941. There are so many interesting things to do in Honolulu that it would be impossible to mention them all! We promise you the vacation of a lifetime if you'll come with us.

Mexican Holiday

After a memorable day in Texas, we head south for Mexico, that enchanting foreign land, full of historical interest, Old World charm, and colorful native people. We will visit many of the best loved places in Mexico, including Mexico City and nearby University City with its magnificent buildings, Morelia, Patzcuaro, the Pyramids of Teotihuacan, Fortin, Puebla, Cuernavaca, and fabulous Acapulco.

In addition to the well known tourist attractions, we get off the beaten track and travel through portions of the country seldom seen by the visitor. This is really a "different" Mexican tour, and we know you'll always be glad you joined our group.

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Gordon Conklin, Editor
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Please send me, without obligation on my part, the following tour itineraries:

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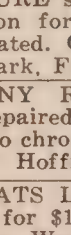
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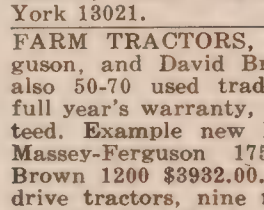
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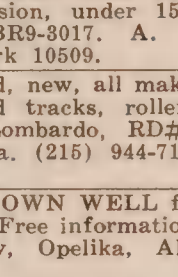
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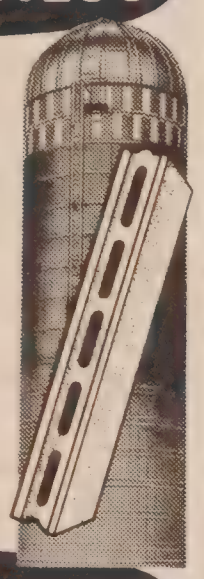
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MORE AND MORE exciting convenience foods and mixes are to be found on shelves and in dairy cases of our supermarkets. They can be real time and work-savers for the busy homemaker, since food processors have already done much of the necessary preparation.

Convenience foods will help you turn out short-order meals for family or unexpected guests, use short cuts for old favorites, and let you be a creative cook by using them in recipes, all while spending the least possible time in the kitchen. Why not set aside a certain kitchen cupboard and a section of the freezer for convenience cooking items.

Canned, frozen, and dry-mix soups are among the handiest convenience foods to have in the kitchen. Alone or in combination, they are always quick and delicious first courses or the hearty main dish for a speedy meal.

A number of soups can be tasty sauces to serve on or combined with meat, poultry, fish, eggs, and vegetables; others become the mainstay of souffles, quick casseroles, scalloped and au gratin dishes, also a basis for croquettes and in meat loaves. Canned broth, consomme, or bouillon give extra flavor to mild meat-base soups and may be used in place of water for cooking rice and vegetables.

EASY SOUFFLES

1 can condensed cream of asparagus soup and
1 cup shredded American cheese
or
1 can condensed cream of chicken soup and
1 cup finely chopped cooked chicken
or
1 can condensed cream of celery soup and
1 cup finely flaked salmon or other cooked seafood
6 eggs, separated

Heat soup slowly, add cheese (stir until cheese is completely melted), meat, or fish as indicated. Add slightly beaten egg yolks and cool. Fold in the stiffly beaten egg whites. Pour into ungreased 2-quart casserole. Bake in a slow oven (300°) about 1 to 1¼ hours or until souffle is golden brown. Serve immediately to 6.

OLD-TIME TOMATO RABBIT

1 can condensed tomato soup
2 cups shredded American cheese



Chocolate-Cherry Torte is pretty enough for a party and so easy to make with today's time-saving convenience foods.

¼ teaspoon dry mustard
1 egg, slightly beaten

Heat soup slowly over low heat. Add cheese and stir until melted. Stir in mustard and egg; mix well. Serve hot on toast or crackers. Serves 6.

SEAFOOD CASSEROLE DELUXE

1 can condensed cream of mushroom soup
1 can frozen shrimp soup, defrosted
Rich milk or light cream
1 small can crab meat, drained and flaked
1 small can cooked deveined shrimp
1 small can lobster, drained and flaked
or
1 small can tuna, flaked
⅓ cup toasted slivered almonds
2 tablespoons dry parsley flakes
1 tube refrigerated baking powder or buttermilk biscuits

Combine soups and thin with a little rich milk or light cream to medium consistency. Stir in seafoods and almonds and heat carefully. Place in lightly greased 2-quart casserole.

Separate biscuits, dip edges in parsley flakes and arrange around edge of casserole. Bake in hot oven (400°) about 12 or 15 minutes, until biscuits test done and are golden brown. Serves about 6.

REFRIGERATED DOUGH TRICKS

Refrigerated yeast and cookie doughs from the grocer's dairy case are ready on a moment's notice to provide treats for family and guests. Yeast doughs should be stored in the coldest part of the refrigerator (not in freezer) and used before expiration date on package. All yeast dough must be baked once the package is opened, but leftover baked rolls may be wrapped in foil, reheated, and served later.

Cookie dough may be stored in either freezer or refrigerator. Tightly wrap any leftover cookie dough so it will not dry out. Here are some ways to use these doughs.

Daisy Coffee Cake—Separate 1 can of refrigerated Quick Raisin Danish or Orange Danish Rolls with Icing into 8 rolls. Place 1 roll in center of greased cookie sheet. Form oblong petals from remaining rolls and place around center roll. Bake in moderate quick oven (375°) 18 to 22 minutes, or until golden brown. While warm, spread center with jam or preserves and ice the petals. Serve warm.

Ice Cream Cookie Pie may be made by slicing Refrigerated Slice 'n Bake Cookies of any desired flavor ⅛ inch thick. Line bottom and sides of a lightly greased and sugared 9-inch pie pan with slices, overlapping them slightly to form a scalloped edge.

Bake in a quick moderate oven (375°) 8 to 10 minutes, until light golden brown. Cool and fill with ice cream balls of desired flavor. Freeze for at least 2 hours before serving and then drizzle with appropriate sauce. Or fill shell with 2 layers of ice cream, such as chocolate and strawberry, pistachio ice cream and raspberry sherbet, or your favorite combination.

Here are recipes for a main dish and another dessert we think you'll like.

SWEDISH MEATBALLS ROMANOFF

1½ cups soft bread crumbs
½ cup milk
1 pound ground beef
3 tablespoons chopped onion
1 egg, slightly beaten
1½ teaspoons salt
¼ teaspoon nutmeg
⅛ teaspoon pepper
2 tablespoons butter
1 package Noodles Romanoff (noodles with sour cream and cheese sauce mix)

Soak bread crumbs in milk. Mix with ground beef, onion, egg and seasonings, tossing lightly with fork. Shape mixture into 1-inch balls. Brown meatballs on all sides in the butter. Cover and simmer over low heat for 10 minutes.

Prepare noodles as directed on package, except increase milk to 1 cup. Drain excess liquid from meatballs; pour noodles over meatballs. Cover and simmer 5 to 10 minutes longer. Serves 6.

CHOCOLATE-CHERRY TORTE

1 package Creamy Cherry Frosting Mix
2 cups heavy cream
1 package Cherry Chip Cake Mix
2 envelopes (1 ounce) premelted chocolate

Combine package of Creamy Cherry Frosting Mix with heavy cream in a small mixer bowl and chill.

Prepare Cherry Chip Cake Mix as directed on package. Pour half the batter into one of two greased and floured 9-inch round layer cake pans. To remaining batter, blend in 1 envelope of premelted chocolate and pour mixture into remaining pan.

Bake layers 25 to 30 minutes, or until top springs back when lightly touched with finger. Cool. Split to make four layers.

Whip frosting mixture until stiff. Alternating the colored layers, fill with 1½ cups of the frosting mixture. Blend 1 envelope premelted chocolate into remaining frosting and frost sides and top of cake.

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Journey To Day Before Yesterday

by Ed Eastman



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VISITING

with

Home Editor Augusta Chapman

From time to time, I get requests for sourdough recipes and for information on how to cook wild game. Recently I've learned about two cookbooks which you might like to have if you're interested in these forms of cooking.

The first, "Sourdough Jack's Cookery Kit," contains sourdough starter and a spiral-bound cookbook with amusing anecdotes and tried and true sourdough recipes. The Kit is $2.25 postpaid from **Sourdough Jack's Country Kitchen, 1095 Kansas St., San Francisco, Calif. 94107.**

Second is the new "Remington Wild Game Cookbook" which contains 400 recipes for mouth-watering game dishes tested by "Bill" Johnson, host of his own television show, "The Hunter." This book is available at sporting goods dealers, or you can send $1.95 to **Wild Game Cookbook, Box 206, Fairfield, Conn. 06430.**

Easy Hard-Cooked Eggs

Here's a quick and easy way to prepare a batch of hard-cooked eggs for salads and sandwiches.

Grease a large casserole and break in eggs (to not more than 2 inches in depth). Cover and set casserole in larger pan containing boiling water. Bake in preheated 400° oven for 40 minutes or until eggs are done. Remove from oven and score eggs. They'll come out diced and ready to use. Eliminates difficulty in peeling fresh eggs.

Sewing Boom

Home sewing is now the favorite hobby of American women, according to Simplicity Pattern Company, and last year forty million women and teens stitched up some 300 million garments. This is twice as many as were sewn in 1960. It's big business too, for more than two billion dollars were spent for patterns, fabrics, thread, and trimmings.

Here's good news for all you home sewers! You can now buy yard goods made of machine washable wool treated to resist shrinking, felting, and fading. USDA scientists developed the "Wurlan" process for making machine washable wools, and a number of manufacturers are now selling washable wool yard goods and readymade garments.

It is important to follow the washing directions given by the fabric manufacturer. Look for these on hang tags or labels of garments and on the end of the bolt of yard goods. Instructions usually suggest use of warm water and a short wash cycle, using mild soap or detergent. Some washable wools may be dried in the automatic dryer, but again it's best to follow directions given by the manuracturer.

When sewing these wool fabrics, use washable shrink-resistant thread and lining materials. Adjust the tension of your sewing machine to avoid puckering, usually more pronounced after washing.

Also of interest to the home sewer, particularly the teenager, is a precision-made sewing machine weighing about 14 pounds and looking like a portable radio. It's the **Lotus,** engineered in Switzerland, and distributed in the United States by the White Sewing Machine Company.

A two-dial control system makes the switch from simple forward and backward sewing to zigzag quick and easy. One needle size can handle anything from the thickest to the sheerest fabrics, and there is an universal tension adjustment for correct thread tension. One sewing foot serves for practically all purposes.

"Perked" Cocoa

The next time you want to make cocoa in a fairly large quantity, try using your party-size coffee maker. Here's a recipe for **Perky Cocoa** developed by The West Bend Company which is sure to please the children.

PERKY COCOA
(Serves 18-20)

8 cups water
8 cups milk
¼ teaspoon salt
¾ cup chocolate syrup
1 cup small sugar cubes

Place water and milk in coffee maker. Lay sugar cubes evenly on bottom of basket. Place basket assembly into perk. Pour chocolate syrup over cubes, add salt, and perk. When coffeemaker stops, remove basket assembly and serve immediately. Garnish cocoa with whipped cream or small marshmallows.

Do You Have...

A "recipe" for white liniment? **Miss Mary L. Scheff, Route 2, Box 99, Corinth, New York 12822,** says her father used to make it, and it contained eggs, vinegar, turpentine, and salt.

A recipe for Polish Sausage? If so, will you share it with **Mrs. Earl M. Harrington, 14 S. Main St., Philadelphia, N.Y. 13673?**

A Pillsbury Cookbook No. 1 to spare? **Mrs. E. J. Hockenberger, 623 Webster Road, Webster, New York 14580,** would like to complete her set.

An old Pennsylvania Dutch recipe for a meat pudding? **Mrs. Joseph V. Riley, Route 1, Riddle, Oregon 97469,** says it is similar to "head cheese" and was slowly baked in an earthenware crock for two days or more. The fat came to the top and sealed the pudding so it kept a long time.

A recipe for Baltimore Pickles? This request comes from **Mrs. Alfred Schmedding, R. D. 2, Box 343, Coventry, Conn. 06238.** Mrs. Schmedding says it contains cabbage, tomatoes, onions, and peppers.



A "NEW" CLOSET

Do you have a Fibber McGee closet in your home? If so, here are some suggestions for changing it into an attractive, serviceable area (which you'll be proud to show your friends) and one with no waste space.

The first thing to do is clean out the closet, and this job will be much easier if you discard clothes, shoes, and other articles you haven't worn or used in the past year. If you're the saving type, you probably think you might want this or that; then two years later, those things are likely to still be there, cluttering up the closet! There are many charitable organizations that will be glad to get the things you don't use.

Now that your closet is cleaned out, how about lining it with fragrant red cedar? It's handsome, it discourages moths, and is easily nailed to existing walls. A tongue-and-groove feature simplifies and speeds installation, making it a do-it-yourself project for the family handyman.

When planning your closet, consider putting in double bars for hanging skirts and blouses. This will give you twice as much space to store your clothes. A row of shelves will provide a storage place for shoes and put an end to searching for them on the floor. The shelves could be about half as deep as those shown in our picture, making it possible to store more shoes and other small articles in an orderly manner.

A single shelf running the length of the closet is an ideal place for hats, boxes, and even luggage. The other half of the closet can be constructed with a deep shelf just below the long shelf. This can house more boxes, blankets, or sweaters. A pole for hanging dresses, coats, and robes can be installed right below this deep shelf.

Now that you have a beautiful, organized closet (and at a reasonable cost), go buy yourself a new dress to hang in it!

TWELVE YEAR OLD

by Mildred Goff

Not child, not teen,
But in between.
Too old for toys,
Too young for boys.
Sad, mad, and bad,
Then peach-sweet glad.
A darling only mother love
Could tolerate the antics of.



Hung high on the tree trunk, this fixture sheds light downward on a bed of jonquils.

Photo: Westinghouse Electric

LIGHT YOUR GARDEN

by Nenetzin White

AT NIGHT, the smallest garden can be transformed into a fairyland with the addition of a few lights, while a large garden can become an "estate" by the use of lights, well chosen and properly placed. You can install these yourself, but do get a certified electrician to supply you with an unloaded circuit with a ground wire. With this, you can go just as far as you wish.

Mix the types of lights you use with de-emphasis on overhead floods. These are fine for a parking area, but they won't do a thing for your paths or plants. For path or step lighting, there are mushroom-type fixtures, and these should seldom be over 10 or 12 inches high. In a soft green color, they will blend with the plantings so they are practically invisible. Think how lovely a group of crocuses or dwarf botanical tulips would be under one of these, and even groundcovers become more glamorous!

Path and step lights can usually be put into permanent positions and left as placed, but not so with the low floodlights for your plantings. These are the most interesting lights in the garden and should be moved to highlight different plants when at their loveliest.

A simple old-fashioned spirea Van Houtti (not that I disparage the plant) can in blossom become a wonderland by itself. Place the light well away from the plant to accent its graceful drooping branches.

These floodlights should usually be placed in front of the plant if there is room, or off to the side and turned away from normal paths and patios so they will not shine in your eyes. Different plants can be highlighted for foliage, blossoms, or fruit during their best seasons.

To make your grounds look larger, place lights at intervals around the perimeter – perhaps at the corners or a series of lights around a curved border. Don't put lights too close together or in a straight line. Stagger them and occasionally highlight something in the foreground, perhaps a container of annuals, with light from the low flood extending over the lawn beyond.

Don't hesitate to experiment in placing the lights and use your own good judgment. Perhaps you will want to ask for a little help from a nurseryman, landscaper (often the same person), or decorator.

Your source of power will come out underground and can be run under the lawn. Use a sharp spade to lift the sod, lay the line, recover with sod, tamp and water. One of the best places for a power line is just at the meeting place of the lawn and borders, with several outlets at various intervals. Into these you can plug your lawn floods and drive the spike deep into the ground. If you feel these need to be hidden, use a few boulders or some Japanese stone lanterns. Usually, however, with a good deep edging, they are hardly visible.

Garden lights do not need to be intense. It's often better to use several low wattage bulbs with perhaps one or two higher-powered beams in the background. Most lights come in different colors, but be careful or the effect will become garish. I have never used colored lights except at the Christmas Season.

Westinghouse Electric has published a booklet called **"Add Charm to the Night with Outdoor Lighting,"** which covers all phases of the subject in a very complete and interesting manner. It is beautifully illustrated and will give you many ideas for lighting your own grounds.

You can get this book by sending 50 cents to **Westinghouse "Add Charm," P.O. Box 7040, Roseville Station, Newark, N.J. 07017.**

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We have arranged with the publishers to supply directly to our readers, postpaid, any of the following books at the prices listed.

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Ed Eastman's Page

THE NEW ENGLAND IDEA
Part II

In our August issue on this page, I discussed with you what made the early New England people among the greatest in history, and I pointed out that the answer was a platform of principles called the "New England Idea." The practice of these principles enabled the Yankee to sail the seven seas, to lead in manufacture, in politics, in literature, in the professions, and in all the arts.

The New England Idea was built on two great principles, respect and reverence . . . reverence for God, reverence for man, and reverence for the sanctity of the home; respect for education, for law, and for work.

Let's look at the sanctity-of-the-home principle for a moment: Someone has said that you can destroy the world and leave it in ashes and chaos such as Nineveh and Tyre, but if you leave the home intact, man would build a new civilization bigger and better than ever.

What does respect for the home mean in practical down-to-earth living? Here are some principles in answer to that question. You think of others.

1. Every family should plan to have every member present for at least one meal each day.

2. Say Grace. I personally feel that Grace should be said at every meal, not by a meaningless mumble, but by a feeling on the part of every member that the family is in communication with God.

3. Every member, child and adult, should be encouraged to state his ideas and to ask questions.

4. So far as possible the home should be run on a **regular** time schedule.

5. Every member should from his earliest years be responsible for his share of the work.

6. The parents should go to church every Sunday and take the children with them.

7. There always should be discipline in the family, with as few rules as possible but those rules strictly enforced.

AESOP, MODERN VERSION

There is a wise old Aesop's fable which illustrates how not to be a leader better than anything I have seen. My modern version goes something like this:

The sun and the wind, always bitter enemies, were going along a country road in the good old horse and buggy days, when suddenly the wind (always a braggart and a blusterer) said to the sun, "See that man down there?"

The sun nodded his head brightly.

"I'll bet you a whole kingdom that I can get that man's overcoat off in ten minutes."

"I'll bet you can't but I can," said the sun. "And you can have the first try."

So the wind puffed and he huffed, and finally he roared . . . but the harder he blew the tighter the man pulled his coat around thim. Finally, out of breath, the wind gave up but said with a sneer, "If I couldn't do it, of course, **you** can't."

"All right," said the sun, "keep still and mind your own business. You've had your chance."

Then the sun began to shine softly, gradually increasing the heat. After a moment the man relaxed. Another moment or two and he unbuttoned his coat. In a couple of minutes more the man said, "Phew, what changeable weather!" and took his coat off.

Then the sun turned to collect his wager . . . but the wind was nowhere to be seen. "I might have known it," said the sun to himself, "that's always the way with these windy guys."

NOT OUT OF LINE

Out of all the many nice letters that I have received from readers of "Journey to Day Before Yesterday" only one said the price is too high.

Now the publisher, Prentice-Hall, has notified us that the price must be increased to $7.30, which, of course, covers all postage, handling, tax, etc.

Because a writer has no part in printing or pricing a book, I can say that "Journey to Day Before Yesterday" is a beautiful book from a manufacturing standpoint. It is profusely illustrated with old-time pictures and drawings on high-grade paper, in album form like the albums that used to be found on every parlor table. The book is purposely manufactured to have an honored place in your library.

In ordinary times the book could have been manufactured and sold for $4.00 or $5.00 . . . but these are not ordinary times, as you find out every time you go to the store. It is impossible to get used to what inflation and taxes are doing to us, and the new price is in no way out of line with anything else you are buying.

To get a copy, send check or money order for $7.30 to American Agriculturist, Department Book, Box 370, Ithaca, New York 14850.

DO SOMETHING ABOUT IT

I want to thank all of you who wrote me about my article on this page in the July issue, in which I emphasized, among other things, that the lack of discipline in many homes and schools was the chief cause of trouble and misbehavior in school and college.

I pointed out that the majority of young people are fine, but that a small minority could upset many of the others. Some writers thought they saw the dirty hand of communism stirring up young people; many of them thought that one of the chief causes for our troubled young people is the lack of teaching and practice of religion in the home and school. Of course that is right.

The many letters that I received are encouraging, because they indicate that America is waking up, and that good people, including good young people, still believe in the good old-fashioned principles that made this a great country.

But **talking** about a problem does little good unless something is **done** about it.

Why not take the lead in seeing that this all-important problem is discussed in church meetings, in the Grange meetings, in Parent-Teachers Associations, anywhere, in fact, where good people get together. Be sure that young people join in the discussions. Maybe you will wish to use my article to start discussions. Tearsheets of the article are available so long as they last, first come, first served. If you wish a copy or copies, write American Agriculturist, Savings Bank Building, Ithaca, New York, 14850.

OUR MOST DANGEROUS ENEMY

I will never forget drawing in corn from the shock with my brother one late fall day. Every time we lifted a big shock onto the wagon several fat rats would run from under it in every direction. The corn was well eared, and the rats had thought that they had it made for the winter in both food and shelter.

But my little black dog decreed otherwise. As soon as the rats started running, he overtook them one by one, and with a single, violent jerk of his head, broke a rat's neck. He seldom missed one. Since then I have often wondered how much of the corn would have been left if the rats had followed it to the barn, as they surely would if it hadn't been for the dog.

Next to man, rats are said to be the smartest animals on earth. They are also the most destructive and the most dangerous. Scientists say that rats carry as many as thirty-five different diseases.

Rats have been responsible for the death of more people than wars. They were responsible for the bubonic plague that killed one out of every three persons in Europe in the fourteenth century. In India, where the people can least afford to lose food, it is estimated that rats destroy or pollute fifty percent of the grain. You can imagine what they can do in your corn crib or grain bin. Every rat costs you at least $2.00 a year.

Rats breed any month in the year, with five or more in a litter. Some scientist has estimated that one pair of rats could produce three hundred and fifty million descendents in three years.

I could fill this page and many more about the dirty dangerous creatures. This is the time of year when rats begin to come inside to look for security and food. So I hope that I have said enough for you to take immediate action to protect yourself from what has been described as man's worst enemy.

The first step in rat control is sanitation. Clean out the places where they live and breed. The next step is to feed them poisoned bait.

For detailed instructions on how to fight rats, write your State Agricultural College for bulletins, or consult your county agricultural agent.

HAS THE SITUATION CHANGED?

It always used to give good farmers a sense of security and satisfaction if they got most of their plowing done in the fall. When you could plow only an acre or so in a day, there often was just not time enough to do the plowing in the spring in time for the spring planting.

With the advent of the tractor and the gang plow do you think the situation has changed so a farmer can and should do all his plowing in the spring?

EASTMAN'S CHESTNUT

Two old cronies sat in amiable silence with chairs tipped back against the porch wall, enjoying the soft summer morning.

Finally one of them, pointing to an old barn a half mile distant, said, "Bill, I can see a fly walkin' around on Hank Harris's barn over there."

"That ain't nothin' " said Bill, "I not only can see him, I can **hear** him shufflin' around."

Jim looked worried, "I have worried for some time 'fraid I was gettin' a little deef."

Then silence reigned again.

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For The Northeast Farmer

by M. A. Parsons

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(refund on books)
Mr. Roland C. Hall, Albion 4.75
(refund returned merchandise)

VERMONT

Mrs. Edith W. Knight, Bethel 2.95
(refund on medicine)

BEWARE

"Not long ago some men, who said they were Indians, came to my house when I wasn't there and asked my husband if they could fix up our driveway. They gave him a price of $150.00.

"I paid them like a darn fool, and later found that all they did was put a sealer on the driveway. It wasn't worth more than $50.00! I was stupid not to check before I paid them.

"They said their name was Mitchell and that they lived in Middletown, New York, but when I checked I found no one by that name at the address they gave me."

At least once or twice a year we warn our readers about these itinerants who move in during the spring and summer and canvass an area for home repair work. They charge exorbitant prices for inferior work.

The June bulletin of the Better Business Bureau of Western New York warned: "When a Stranger Calls – Check First! This is the most helpful advice we can give homeowners at this time of year! It has been reported that several families of itinerants using the names 'Mitchell' and 'Miller' have 'pitched tents' in our area and will be calling on home owners to repair and resurface driveways."

HELP INSURE PAYMENT

Here are some tips recently sent out by Cooperative Extension Service to help insure payment for the produce of New York State growers:

When you deliver your produce to a dealer or his truck picks up your produce, get a signed receipt showing date, dealer's name, quantity of produce, net price to grower, and the signature of the person receiving the produce.

All Commission Merchants, Dealers, Net-Return Dealers and Brokers in the business of receiving, handling, soliciting, or buying from New York State producers of farm products for sale, other than at retail, are required to be licensed and file a Surety Bond with the N.Y.S. Department of Agriculture and Markets. All licensed operators are issued a numbered license certificate which they must display conspicuously at their place of business, and a card to carry in the wallet, showing expiration date.

On any weekday from 8:30 a.m. to 4:30 p.m., you may verify the license of an operator or buyer by calling Albany, area code 518-457-4990 or, if the line is busy, call 518-457-2774.

Violations or complaints should be directed to James P. Shirikian, Associate Marketing Representative of the N.Y.S. Department of Agriculture and Markets, Bldg. 8, State Campus, Albany, N.Y. 12226. Claims must be made in writing within 12 months of the transaction.

For your protection, before selling your produce, be sure your buyer is currently licensed with the State Department of Agriculture and Markets. Notify that office promptly regarding any complaints.

TRUTH-IN-LENDING

The "truth-in-lending" rules will go into effect July 1, 1969. This long overdue bill provides that finance charges for most consumer credit must be disclosed in dollars and in terms of approximate annual interest on the declining balance of loans. In many cases this will show annual interest rates at levels double and triple the rates traditionally used.

Many complaints we have received concerning sales contracts have been caused by the hidden charges of which the customer is unaware until it is too late for him to avoid them. A contract may show the cost of a furnace to be $2100, to be paid for in 24 monthly payments of $104.16 each. The customer signs the contract without multiplying these figures out, and at some future date is greatly surprised at how much he is actually paying for extra charges. In this particular example the cost of financing is $400, making the total cost of the furnace $2500!

When the new bill becomes effective, such charges should be clearly stated and will come as no surprise.

CAN YOU HELP?

Mr. Edward E. Baker, R.D. 1-308, Boyers, Penna. 16020, desires a copy of the record, "Gulf Coast Blues," an instrumental by the Fred Waring Orchestra in the early 1920's. A tape recording would be acceptable.

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

It Pays To Be Protected

When disaster strikes let North American help pay the medical bills and provide extra income while laid up unable to work. It takes more than a single policy to meet today's high costs — that is why it pays to carry a combination of North American policies.

These folks did—do you?

Laura Schuknecht, Fillmore, N.Y. $ 226.45
Fell on stairs—inj. shoulder
Adda Merwin, Houghton, N.Y. 320.00
Fell—broke hip
Gertrude Finch, Port Crane, N.Y. 190.71
Kicked by cow—injured side
Donald Hale, Delevan, N.Y. 203.47
Cranking tractor—broke finger
Eula Clark, Franklinville, N.Y. 1030.00
Auto acc.—broke leg, teeth
John Hebner, Cattaraugus, N.Y. 632.38
Kicked by cow—broke ribs
Sheila Jayne, Moravia, N.Y. 216.50
Auto acc.—inj. neck, legs
Thomas Rafferty, King Ferry, N.Y. 154.00
Truck Acc.—inj. chest, hand
Roy B. Schutt, Clymer, N.Y. 862.50
Caught in corn picker—loss of hand
Lawrence Abbey, Sinclairville, N.Y. 700.86
Saw kicked back—cut head, scalp
Leonard Vassallo, Sr., Westfield, N.Y. 838.33
Auto accident—multiple cuts, bruises
August Bridgeman, Elmira, N.Y. 120.00
Cranking tractor—injured arm
Elsie Savory, Greene, N.Y. 541.79
Auto accident—broke arm
Gleyn Magoon, Ellenburg Center, N.Y. 450.00
Fell on cement floor—inj. back
Nicholas Zapp, Ancram, N.Y. 236.43
Caught in field chopper—cut arm, fingers
Charles O. Murray, Jr., Truxton, N.Y. 119.65
Chopping corn—inj. fingers
Herman Herklotz, Franklin, N.Y. 1224.28
Caught in corn picker—inj. hand

Horace Green, Hobart, N.Y. $ 262.45
Working with planer—inj. hand
Donald Koch, Lawtons, N.Y. 297.86
Tractor tipped over—broke ankle
Genevieve Dineen, Ft. Covington, N.Y. 256.86
Kicked by cow—broke nose
Margaret Barnes, Hogansburg, N.Y. 578.24
Fell—injured arm
William W. Makarowski, Johnstown, N.Y. 1338.50
Auto accident—multiple injuries
Sarah G. Hint, Batavia, N.Y. 1319.99
Fell—broke vertebrae
Robert Briggs, Prattsville, N.Y. 192.86
Caught in hydraulic cylinder—inj. foot
Sheldon G. Hansel, West Winfield, N.Y. 526.96
Examining revolver—shot in leg
James Parry, W. Winfield, N.Y. 316.71
Auto accident—injured chest
David Lowe, Rodman, N.Y. 1079.89
Truck accident—inj. arms and head
Frank Getman, LaFargeville, N.Y. 200.00
Fell—injured leg
Ida M. Dening, Lowville, N.Y. 540.60
Caught in PTO—inj. fingers
John Murphy, Lowville, N.Y. 312.88
Caught in gutter cleaner—inj. hand
Warren Nuffer, Castorland, N.Y. 185.42
Caught on tailgate—cut finger
Carlene Palmer, Georgetown, N.Y. 125.70
Slipped on kitchen floor—inj. neck, chest
Henry Hoh, Henrietta, N.Y. 181.71
Slipped fell—sprained ankle
Richard Schuyler, Fort Plain, N.Y. 231.40
Kicked by cow—injured knee

Recent deaths and retirement of long time fieldmen have caused openings in certain areas of New York State and New England.

We are now looking for several career minded young men who wish to become local agents.

To learn of the opportunities available write to P. O. Box 100, Ithaca, N. Y.

Leora Peeler, Fonda, N.Y. $ 270.04
Fell—inj. shoulder, elbow
Robert H. Bell, Lockport, N.Y. 278.58
Caught on backhoe—cut, burned thumb
George L. Page, Sauquoit, N.Y. 671.43
Fell from ladder—internal injuries
Phillip Potter, Tully, N.Y. 141.00
Fell off tractor—inj. knee
Gordon Ireland, Marietta, N.Y. 370.00
Fell from hay wagon—inj. back
Lena Lyon, Phelps, N.Y. 573.00
Fell—inj. knee, leg
Robert Coe, Hastings, N.Y. 160.27
Saw kicked back—cut finger
Stephen Braun, Schenevus, N.Y. 122.14
Blown off ladder—inj. knee, heel
Howard Colburn, Burlington Flats, N.Y. 387.50
Fell from trailer—inj. back
Almon Hewitt, Hoosick Falls, N.Y. 446.24
Thrown from tractor—inj. shoulder, leg
Sue Ann Hughes, Massena, N.Y. 477.93
Auto accident—broke elbow
Sterling S. Trimm, North Lawrence, N.Y. 171.42
Caught between shaft and wall—inj. hand
John Leary, Colton, N.Y. 122.13
Pushed by cow—inj. hand
Clarence Smith, Waterloo, N.Y. 130.00
Crushed between cows—inj. rib
Albertina Dodge, Kenona, N.Y. 1418.38
Auto accident—broke arm
Raymond Gauss, Campbell, N.Y. 1336.43
Caught in corn picker—inj. hand
Hobart Cook, Addison, N.Y. 1000.00
Fell from scaffold—broke feet
Thomas Gatz, Riverhead, N.Y. 779.24
Motorcycle fell on leg—broke ankle

Marian Wait, Berkshire $ 522.84
Kicked by cow—inj. knees
Roger Snapp, Newark Valley, N.Y. 623.11
Auto accident—multiple injuries
William Holub, Newfield, N.Y. 576.39
Harold Baker, Stone Ridge, N.Y. 250.00
Caught in chain and fell—broke wrist
Frank Packard, Macedon, N.Y. 197.12
Pushed by cow—inj. ribs
Peter VanWaes, Palmyra, N.Y. 638.13
Fell between crates—internal inj.
James Engels, Wattsburg, Pa. 449.94
Using chair saw—cut leg
Raymond Krise, Osceola, Pa. 183.00
Fell from scaffolding—broke ankle
Vernard Watkins, Little Marsh, Pa. 630.55
Ran over by tractor—broke collarbone
Royden Carpenter, Townville, Pa. 515.00
Tractor accident—mult. injuries
Kenneth Wood, Boyd's Mills, Pa. 122.14
Hit by piece of steel—inj. eye
Robert Gruver, Stewartsville, N.J. 618.45
Hit by screwdriver—inj. eye
Gerald A. Fuller, Fort Lee, N.J. 953.39
Fell off ladder—broke heel
William Cappucci, Jr., Hammonton, N.J. 204.00
Slipped off tractor—inj. teeth
Earl Simcock, Swansea, Mass. 250.00
Fell off truck—broke wrist
Richard A. Downs, East Douglas, Mass. 1036.15
Crushed by dump truck—internal injuries
Harold Tasker, Branstead, N.H. 126.43
Tree fell—injured back
Otto Livingston, Brownsville, Vt. 1022.67
Fell from ladder—inj. leg.

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY
(In New York State)
NORTH AMERICAN COMPANY
FOR LIFE AND HEALTH INSURANCE (In Other States)
GENERAL OFFICES: CHICAGO, ILLINOIS
SAVINGS BANK BUILDING ITHACA, NEW YORK

We could have built this spreader for $100 less



...but how many of these features would you want to give up?

PENTA TREATED WOOD BOX — sides, end and bottom for long wear, greater resistance to acids.

STRUCTURAL STEEL FRAME and cross members, formed steel vertical supports, inverted arch and full length steel flareboards — a unitized body to work with the load.

PTO DRIVE MECHANISM — biggest, toughest in New Idea history, built to last. Practically maintenance-free. Has a Belleville slip clutch instead of a shear bolt, fully-splined feed shaft (not just keyed), rugged gearbox and ratchet, and heat-treated ductile iron conveyor sprockets.

BEEFED-UP CONVEYOR—newly positioned rail steel angle bars are riveted to improved attaching links with 20% thicker rivets. Result: longer bar and chain life.

HEAVY-DUTY A-FRAME HITCH, welded for extra strength, has jack as standard equipment.

SPECIALLY FORMED STEEL AXLES — with fatigue-proof spindles to carry heavier loads for years of trouble-free service!

BIGGER, TOUGHER BRACKETS for conveyor idler sprockets, easy to adjust.

NON-CORROSIVE POLYETHYLENE safety shielding (not steel) on power drive shafts.

GREATER "LEVEL LOAD" CAPACITY — wider boxes that give you greater capacity without excessive heaping.

WIDE RANGE OF SPREADING RATES, rope-controlled from the tractor seat. Five rates plus neutral and clean-out.

LOW COST WAY TO HANDLE SLOPPY MANURE with optional mechanical or patented hydraulic endgates — and for the single beater, a pan attachment.

9 PTO's from New Idea...3 spreading mechanisms, 3 sizes: 135-bu., 165-bu., 195-bu.

In addition to the Flail and the Cylinder/Paddle mechanisms, there's the rugged, economical Single Beater (above). Its special paddles are made of ¼" steel plate, and are set at a 25° angle. Tips are canted for optimum "slicing" through large chunks, and for keeping manure low. See the New Idea PTO SuperSpreader with full year warranty. Three sizes of each type.

Low maintenance cost over the years, with higher trade-in value means less yearly cost to you.

AVCO NEW IDEA FARM EQUIPMENT

COLDWATER, OHIO 45828



For The
Northeast Farmer

OCTOBER 1968

American Agriculturist

and the

RURAL NEW YORKER

There is a way for you to stay in business, make money, grow.

Agway is doing something about it on behalf of 102,000 farmer members.

Agway is providing you with the one thing you never have enough of: *time*. More of your own. Some you could never afford to buy. Study time. Planning time. Barn time. Field time. Thinking time.

Consider . . .

Every year, more than ten thousand scientists in industry, at agricultural colleges and universities and at government experiment stations, complete thousands of experiments. Most of their reports on these experiments aren't directly available to you, and you wouldn't have time to read all of them if they were. Yet many will affect what you do and how you should do it. By yourself you simply cannot keep up.

But Agway is keeping up. Through the projects Agway sponsors, there is a direct pipeline to the important research conducted by business, universities, and the government.

Agway employs a staff of specialists in each of the key areas of agricultural science. It is their responsibility to study, digest, interpret what is happening. They keep current on all the things you don't have the time to study. What these men learn is available to you.

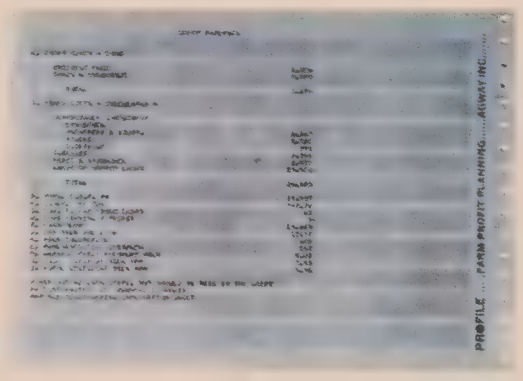


Like research, planning is today too big for one man or even a group of men. But planning that harnesses the speed and capacity of computers can meet the kind of challenge farmers now face.

Take dairymen. How much time can you afford to spend with your cows? Studying breeding records? Planning changes? Analyzing feed intakes?

Determining whether to buy formula feeds or use farm-produced grains? Deciding on the basis of feed conversion which cows to cull and which to feed for peak production? And these are only the more immediate questions to be answered.

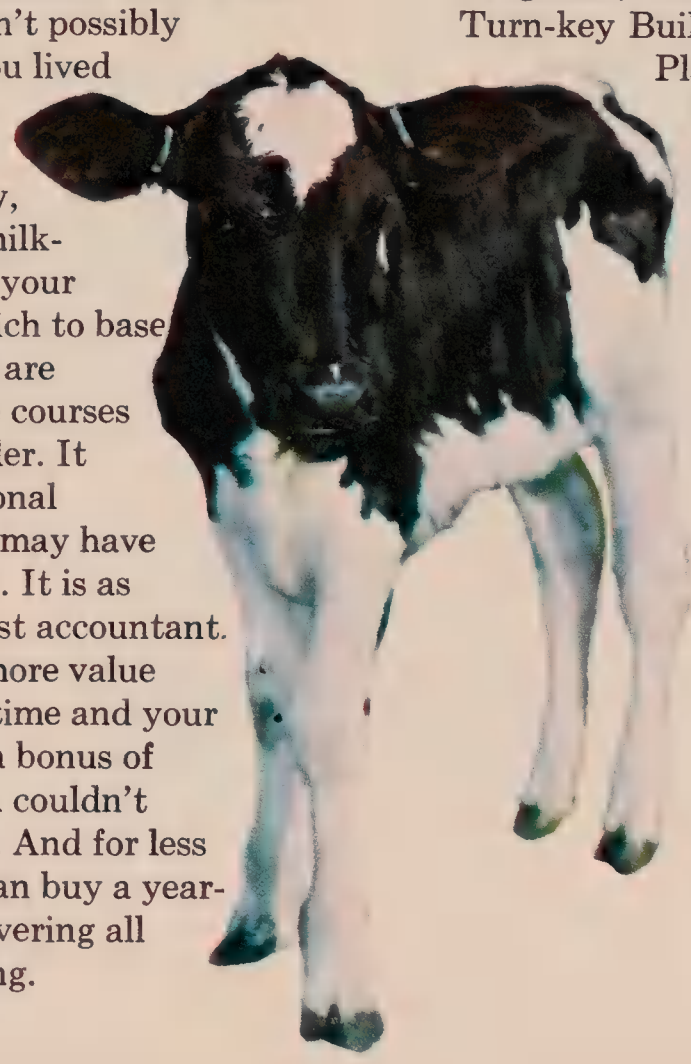
To digest, correlate, and apply the enormous diversity of information relevant to profitable dairying, Agway has installed the largest computer facilities available. This particular operation is called the *Agway Profile Service*. Through the Agway Profile Service, a wide variety of decisions can be made, based on the kinds of reports the service provides.



For example, at a cost of only $2.50, Agway's computerized *Profile* service can tell you what combination of commercial rations or grists is your best bet when combined with your particular roughage program.

For a minimum of $5.00 and a maximum of $10.00, you can determine the least-cost formulation of farm-grown grains plus supplements and/or ingredients at selected protein and TDN levels.

Given your raw figures, Agway's computer experts, for $90 yearly, can give you a monthly herd profile study you couldn't possibly obtain even if you lived with your cows 24 hours a day . . . a cow-by-cow, milk-check-by-milk-check picture of your operation on which to base decisions. There are several alternate courses for you to consider. It ignores the personal attachment you may have for favorite cows. It is as objective as a cost accountant. Again, you get more value from your barn time and your capital . . . plus a bonus of outside time you couldn't otherwise afford. And for less than $300 you can buy a year-round service covering all phases of dairying.





Profile is but one of the services developed by Agway to meet the growing needs of its members. It provides the base for accurate, thoughtful decisions on the best use of all other farm production tools—crop programs, fertilizers, seeds and pest controls; feeding programs and rations; the planning of new farm buildings and revamping of those now outmoded. Appropriately, this broad area of management assistance is called Agway Farm Enterprise Service.

Why is Agway doing this?

Times are changing. Farming is becoming big business. Successful farmers are applying the tools of big business. Agway is changing, too—adapting to these changing needs and readying itself to provide new services to meet the total business needs of today's business farmer.

What to do about it?

Write to N. E. White, Agway Inc., Box 1333, Syracuse, N. Y. 13201. Ask him to send you the information you need on Agway Farm Enterprise Service.

Agway

FARM ENTERPRISE SERVICE
Profile Management Services; Feeding Programs; Complete Crop Service; Turn-key Building/Automation Plans and Construction; Herd Health & Sanitation Programs; Complete Petroleum Service.



New from Geigy... for weed control in alfalfa.

Just one fall spray of Princep™ 80W herbicide assures you of truly effective control of yellow rocket, white cockle, pennycress, chickweed, henbit and many other yield-cutting problem weeds in alfalfa.

Next spring, your alfalfa will get off to a fast start and grow like it should. Lush, rich and packed with protein. Unchoked by weeds that contaminate and stifle yields. Weeds that can strangle the life out of a good stand.

All that's needed is one application of Princep any time after the first killing frost . . . but before January 1. Alfalfa stands should be established at least 12 months.

For stronger stands, higher quality, higher yields . . . protect alfalfa with Princep.

See your supplier or write us for more information.

Princep is a trademark of Geigy Chemical Corporation for its brand of Simazine herbicide.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Ardsley, New York 10502.

Princep by Geigy

American Agriculturist
and the RURAL NEW YORKER

For The Northeast Farmer

Vol. 165, No. 10

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OUR COVER

No apples in the world are better than those grown in the Northeast. Apple time is anytime, but October mingles their aroma with the special tang of fall . . . surely one of the great pleasures of living in our region!

Photo: Mrs. Paul F. Barker



Baby's world is warm and cozy, thanks to LP-gas

LP-gas heat is clean, even heat. No oily soot, dust, dirt or grime. Never unhealthful periods of chill either. No electric heating units that must first warm up to falling room temperatures. LP-gas heat is ready instantly and always dependable, quiet, completely automatic and carefree. So, warm up to modern LP-gas equipment for the heating requirements in your home. You'll have the best indoor comfort you can buy.

Of America's great sources of energy, only LP-gas serves you in so many ways.



NATIONAL LP-GAS MARKET DEVELOPMENT COUNCIL

White isn't a dirty word with Texgas® LP-GAS Home Heating.



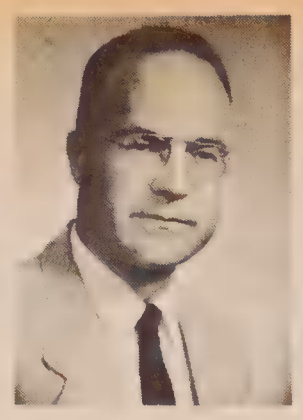
With Texgas home heating, you know your lightest colors and fabrics are safe from yellowing and dingy grease spots. Clean-burning, dependable Texgas helps you keep your whole house clean — and it does a great job of heating your home without sending your utility bills into a tailspin. So bring your pastels and whites out in the open. Think white. Think clean. Think TEXGAS. Your curtains will love you for it.

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EDITORIALS



by GORDON CONKLIN

CRUCIAL CHOICES

On the North American continent of nearly 200 years ago, some brave and sturdy people welded together a new nation in the crucible of revolution. They dreamed great dreams . . . setting down on paper, and thundering in dramatic speeches, the hopes of mankind accumulated across the ages.

But these people were no pipe-dreamers; what they fashioned was based on a realistic assessment of themselves and their neighbors, as well as their ancestors and decendants. They built a framework designed to encourage people to be productive . . . and to protect their lives and property so they would have the incentive to be creative.

The wisdom of their choices became evident as the new nation grew to become the most powerful and productive on earth. Not only did it defend the bulwarks of freedom, but it gave more of its substance to friend and foe alike than any other country in the history of man.

But the American Dream seems to be foundering amidst the reefs of the Grated Society.

From the arteries of our beloved land gushes its life blood in a war that doesn't make sense . . . the longest war ever fought by these United States, and no end in sight. Desperately urgent problems at home go unattended because of the endless bloodletting of gallant men and badly-needed money. It is as though we sought the cure of a dangerous national fever through the use of leeches so popular for "bleeding" in generations past.

Taxes rise . . . and yet the ever normal granary of national debt nears $400 billion with the latest infusion of the last fiscal year's $25,000,000,000 failure to make ends meet. During the years 1961-67, the federal deficit totalled **$40 billion.** And the cruelest tax of all . . . the inflation that steadily erodes the purchasing power of the dollar . . . has accelerated because of huge federal government deficits.

City streets at night belong to the cold-eyed criminal instead of the law-abiding citizen. The looters grab our leadership in their tender hearts even as they grab goodies from the burning stores. The majority of Supreme Court justices . . . some seemingly insulated from reality by social position, and some by senility . . . do little to turn back the tide of crime that threatens to engulf us all.

Farmers writhe as they see farm prices and farm costs in a national relationship causing parity to be at a level comparable to the depression years of the 30's. They deeply resent the clarion call to "feed the world" issued in 1966 and '67 by government leaders . . . only to see domestic farm prices plummet as a result of increased U.S. production.

Choosing among the political candidates has an unusual urgency in 1968. You and I need to look beyond the shallow promises most politicians make to sway our votes. Our choice of President, senator, and congressman must be on the basis of their long-run beliefs . . . receiving political goodies for ourselves and our group won't mean much in the kind of country toward which today's trends are taking us.

Make no mistake, folks, we're in real trouble as a nation and as a society . . . not sick, but off course. Look over carefully the folks applying this year for the job of being crew on our Ship of State . . . the shape of the future rests with the choices we make in the voting booths this fall.

HYDROSTATIC POWER

It was my privilege to attend the first Northeast Mechanical Fruit Harvesting Demonstration Days, held in 1968 near Lewiston, New York. Congratulations for a fine show to everyone involved!

The common denominator of almost all the equipment shown was a startling increase in the use of hydraulic power. Instead of chains, gears and belts, power is now more often transmitted through a hose . . . at least in fruit harvesting machinery.

I predict a great future for power through a hose . . . something you can learn more about from an article starting on page 10.

LAND COMMISSION

Beginning in August of 1966, and continuing until late July of 1967, I served as a member of the temporary New York State Commission on Preservation of Agricultural Land. The group was asked to define geographically those areas deemed essential for preservation in agricultural use, to propose measures for preservation of these areas for the production of food and fiber, and to make recommendations for maximum use of the State's waters for irrigation.

The Commission did not make the common political mistake of promising vast and instant reformation of all society by the day after tomorrow. It met in long and many sessions, attempted to become informed about the problems and opportunities, and its members tried to hammer out reasonable compromises that would hopefully be politically possible.

In an early move, Commission recommendations were accepted that set up a liaison between the State Department of Transportation and the Department of Agriculture and Markets. This was done in order to provide DOT with specific information about the impact on agriculture of alternative public works locations, especially highways.

The development of this work under the leadership of ex-county agent state leader Wally Washbon is an example of unspectacular . . . but enormously important . . . long-run efforts to realistically come to grips with long-run problems. The arrangement has worked so well that it was formalized by legislation in the '68 session requiring essentially the same working relationships that were already in effect between the two departments.

Commission recommendations also led to the passage, in 1968's legislative session, of the law exempting from taxation for five years certain farm capital improvements.

The Commission's final report contained many other recommendations . . . including a precedent-shattering suggestion for agricultural zones in the State where "flexible and aggressive farming activities are specifically permitted." Nonfarm uses would be permitted in these zones, but nonfarm persons locating there would do so with a clear understanding that farm uses have priority under the zoning ordinance.

Looking down the years, Governor Rockefeller has made plans to set up a permanent Agricultural Resources Commission to make and implement plans that would continue a dynamic agriculture in the Empire State . . . and also insure desirable open space for future generations of urban dwellers.

MORE GRAIN

A tremendous national feed-grain crop this year, plus all-time high milk prices . . . what does this combination mean to dairymen?

Well, dairymen in the Northeast will go into the winter with bulging haymows and silos . . . and will naturally be tempted to go long on roughage, short on grain. But the price of milk compared to the price of grain will be such that some dairymen will miss the top-dollar boat.

My bet is that most dairymen will coin the most profit by increasing grain-feeding levels, rather than yielding to the temptation of forcing their herd to produce milk largely on abundant . . . but low-quality . . . roughage. Hay quality is generally down this year from normal.

Cows can put in the pail only those nutrients they can absorb from their rations. Old "hollow-gut," one of the most prevalent "diseases" among dairy cattle, will likely be as prevalent . . . or more so . . . than it is in the feeding season following a dry year.

Happiness for a dairyman is cheap grain and high-priced milk . . . if he takes advantage of it!

THE KILLER

There it sits. Deadly. A crippler. Every inch a killer.

Its metal gleams with the sinister chill of a snake's eye.

It kills and maims with the blood-curdling abandon of a wolf in a flock of sheep. The screams of its victims ring across the land every day, 365 days a year . . . 55,000 dead and 4 million injured last year.

It is registered, regulated, and legislated ad infinitum.

It is not the gun . . . it is the automobile.

GUEST EDITORIAL

I have seen more harm done in this world by those who tried to storm the bastions of society in the name of Utopian beliefs . . . who were determined to achieve the elimination of all evil and the realization of the millennium within their own time . . . than by all the humble efforts of those who have tried to create a little order and civility and affection within their own intimate entourage, even at the cost of tolerating a great deal of evil in the public domain.

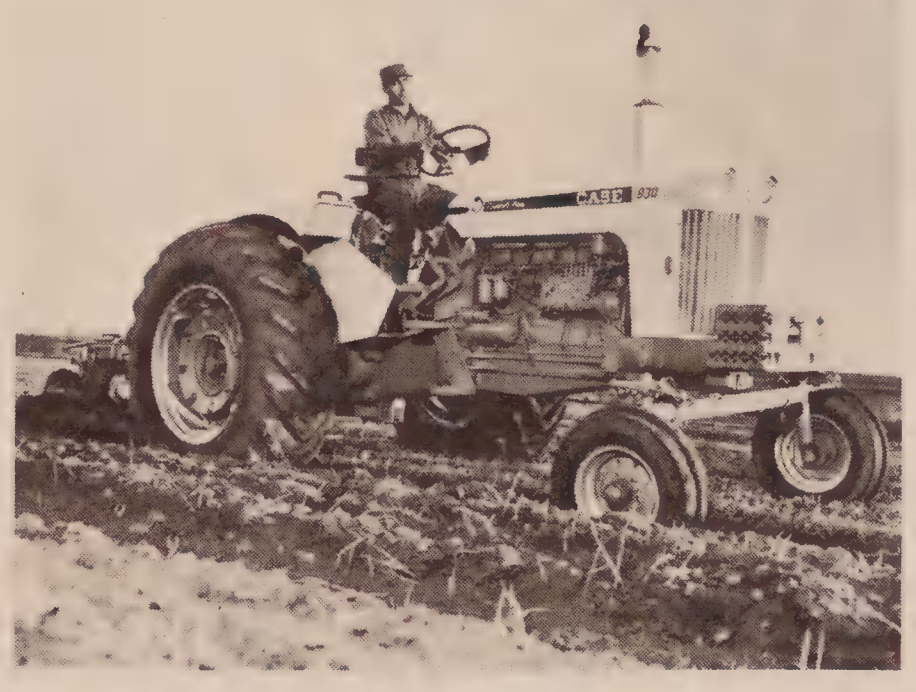
The revolutionary is unable to face the fact that the decisive seat of evil in this world is not in the social and political institutions . . . and not even, as a rule, in the ill will or iniquities of statesmen . . . but simply in the weakness and imperfection of the human soul itself . . . and by that I mean literally every soul, including my own and that of the student militant at the gate.
— *George Kennan, Historian*

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Herman Rasmussen (left) and his son Robert.

LIQUID FERTILIZER

Herman Rasmussen and his son Robert farm 225 acres which they own north of Penn Yan, New York, and rent another 100 acres.

Their chief crops are 125 acres of red kidney beans and 90 acres of corn, both sold as cash crops. They grow around 26 acres of wheat and 16 acres of oats. "We get 85 to 100 bushels of oats per acre," said Herman, "and it's not a bad cash crop."

The Rasmussens own a corn picker, sell and truck corn to dairymen within a 50 to 60-mile radius. Some years ago Mr. Rasmussen had a dairy, but now he and his son are raising heifers for a neighbor. The neighbor pastures the youngstock in the summer and furnishes grain and hay . . . as well as silage, which he puts up in the Rasmussen silo for winter feeding. The owner pays the Rasmussens so much per animal per day.

The Rasmussens have gone entirely to liquid fertilizer. "It costs a little more," said Herman, "but there is no lifting, and our results have been excellent. It does need special equipment, of course. On corn we put on 6 to 7 gallons per acre when we plant, testing 10-10-10. Then we spray 3 gallons per acre when the corn is 14 inches high, and again just before it tassels.

"On beans we use some when we plant, a second application when the beans are 6 to 8 inches high, and again just before they blossom.

"The fertilizer is delivered to us in tanks. It has been used in Ohio for 20 years, and I think its use is spreading in this area. — *H.C.*

BREEDING WITH A GOAL

For twenty years we have been culling and breeding purebred Holsteins with a definite goal in mind. We have tried to produce a Holstein with the ability to stand on concrete, to be an aggressive feeder on a cafeteria system . . . neither too timid nor too bold . . . a cow with a high capacity for eating corn silage. In other words, to produce cows with the ability for high production in free stalls without pampering.

Our herd has lived in loose housing for eighteen years, and has undergone selective breeding for twenty-five years. Our culling rate has been below average for five years.

For three years production per man per year has topped a million pounds, and production per cow per year has been 17,000 lbs. or over. Grain is fed at the rate of 1 lb. for 4 lbs. of milk.

We have been increasing the herd. In 1966, 118 cows; in '67, 126 cows; and in '68, 131 milkers.

The goal is more milk per man.

We are now starting heifer calves on corn silage at 2½ months of age. This is based on work done by Dr. Kissler of Penn State. — *Lou Longo, Glastonbury, Conn.*

DEED DATED 1795

I enjoy visiting with relatively-young farmers in the prime of life, men with long-time plans. However, occasionally it is refreshing to talk with an older farmer who may have slowed down a little, but who through years of observation and experience has reached some sound conclusions.

Such a man is Howard Utter of Stanley, New York. His excellent farm of 131 acres is in a fine vegetable-growing area . . . incidentally, the deed goes back to 1795!

"At one time," said Howard, "we had apples, but they were pulled out 35 years ago. Then we set 1000 sour cherries, but they proved unsatisfactory and were pulled out 15 years ago. About 35 years ago we set some sweet cherries. Some have died, but we have close to 100 still bearing, the fruit being sold to customers who pick their own.

"Our main crops, however, have been vegetables for canning, including baby food."

Then we talked about many things, and here are some of Howard's observations:

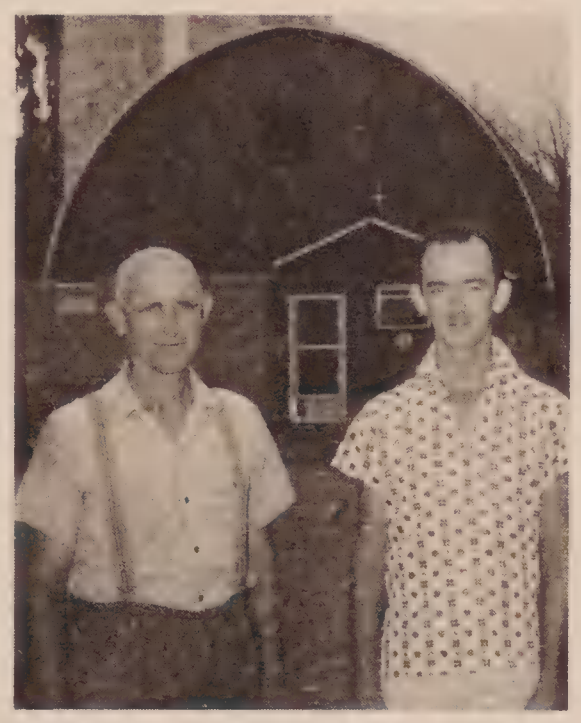
"As I see it," he said, "there never was a better time to be alive than the present. We have conveniences and luxuries unheard of by any former generation.

"I feel sure that the family farm will survive. It will be larger, of course, and must be large enough to keep the available family help busy in profitable enterprises. I don't feel that the one-man farm is desirable. The operator is tied down too much, and if he is sick or injured there is a real problem. It's my idea that the work force on the family farm will vary from 2 to 6. A family farm can still hire a man or two if it seems desirable; it's essential these days to have volume and quality in order to market efficiently.

"I am optimistic. I believe that if something is really evil it will in time kill itself. Eventually the good will prevail.

"Too easy credit bothers me a little. It's difficult for me to see how a man can pay $40 an acre rent and 7 percent interest on borrowed money and still make a decent living."

Before I left Howard took me to see his garden. It has always seemed to me that a farm without a garden lacks something very important. The quality of what you grow is better than what you can buy. And if you really know how, the money value of what you produce is considerable, especially for a large family. — *Hugh Cosline*



Wallace Francisco (left) and son Fred.

THEY INCORPORATED

Under some conditions it is a good idea to incorporate a farm business. The Francisco family of Belmont, New York, with a farm that has been owned by the family since 1862, did just that.

Several members of the family were potential heirs or had a financial interest in the farm, but now the entire stock in the corporation is owned by Wallace Francisco, his son Fred, and Wallace's brother, Norman.

Among the advantages are:

1. Limited financial liability. In case of claims against the corporation only the assets of the corporation (not of the individual stockholders) can be used to satisfy them.

2. The death of any stockholder . . . or all stockholders does not change the status of the corporation; it remains a legal entity.

3. It is much simpler to pass the farm to the next generation.

Mrs. Francisco pointed out one possible disadvantage . . . the necessity for keeping more records. As a corporation, it is required to employ a certified public accountant to check the figures.

Fred became part of the business when he completed his "stint" in the Navy, and at present plans are underway for some expansion.

A new barn was built in 1954 for 34 cows, and an addition made in 1961. Now another addition is being constructed, and free stalls are being installed to increase the herd from 65 to around 95.

A milking parlor is under construction. After getting cost figures from a contractor, the Franciscos decided to do most of the work, and estimate a 50 percent saving.

"Fred worked for us for a time after returning from the Navy," said Wallace. "We wanted to see if we could work together. He was married in 1962, and we incorporated in 1965.

"This is strictly a family farm," he continued. "We own and rent 470 acres, and milk is our only product. Each of us draws a salary, and the profits, if any, are divided on the basis of the stock owned."

The corporation, of course, is taxed, and each stockholder pays an individual income tax according to what he earns.

After talking with the family, I wonder if more farmers might profit from incorporating. I realize that it is unnecessary on many farms, but in many cases death of the owner results in problems, and sometimes injustice, when an estate is settled.

Incidentally, the Francisco farm received a "Century Farm" citation in 1966. — *H. L. C.*

SLOW GROWTH

We have increased our dairy slowly. I realize the importance of increasing our milk production per man, but I also am aware of the danger of too much debt. I have heard farmers say they never expected to be out of debt, but when I sell out and retire I want to take more than a car and some furniture.

We (two of us) usually milk 46 cows, and have 40 herd of young stock on 300 acres. We sell some purebred calves to 4-H youngsters, and some cows and a few bulls to dairymen.

Twenty-six years ago we had 14 cows. By 1950 the herd had grown to 25, and to 38 in 1951, when we remodelled the barn. Then two years ago we added on to the barn so we could handle 50. We also bought 90 acres of land.

We are now producing 350,000 lbs. of milk per man per year, and are shooting for 400,000 lbs.

In 1960 we bought a bulk tank. We have a transfer system to take the milk to the tank, and I am thinking of a pipeline milker.

If I had to build a barn, I would consider free stalls, but not as long as we have a good barn with stanchions.

The alfalfa weevil has reached us. Last year we sprayed one piece and expect it will become routine. We take two cuttings, and greenchop or pasture the third.

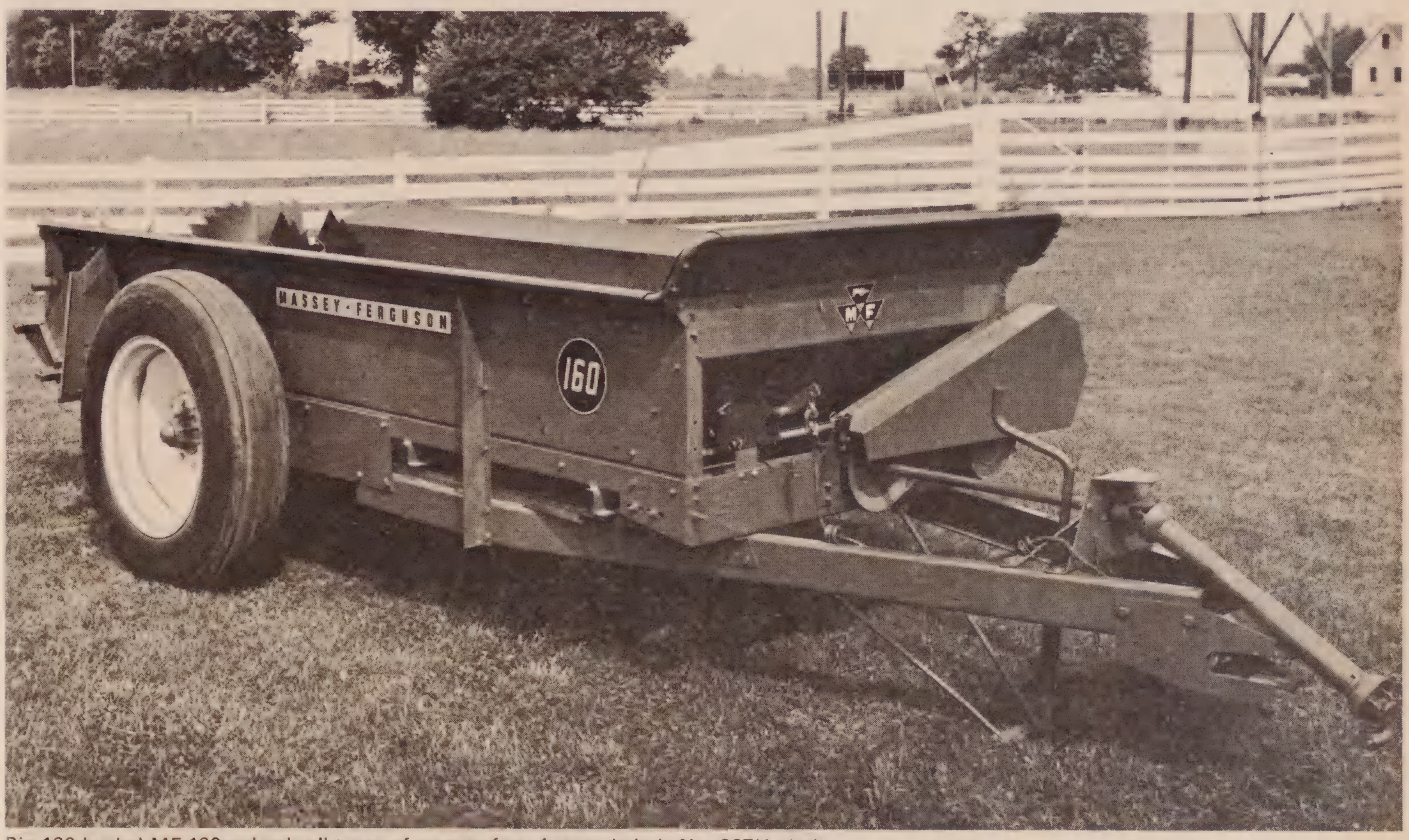
We grow around 26 acres of corn, chiefly for silage, but last year we picked 10 acres.

As I look back, the three things that have been most helpful to me are the Extension Service, dairy records, and artificial insemination of the herd. — *Eugene Brace, West Winfield, N.Y.*

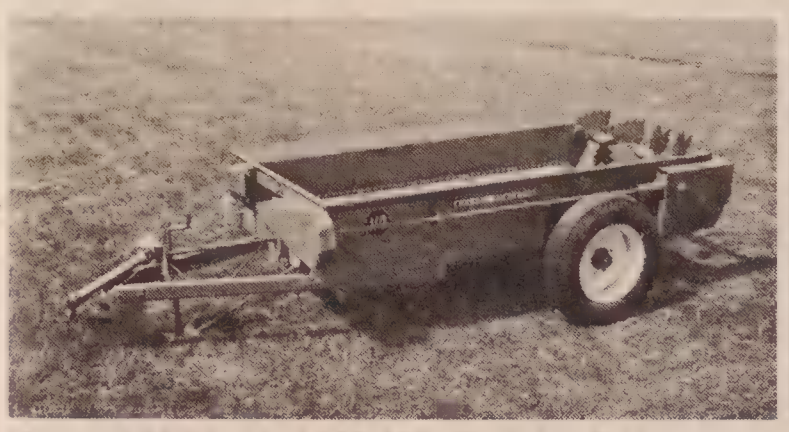
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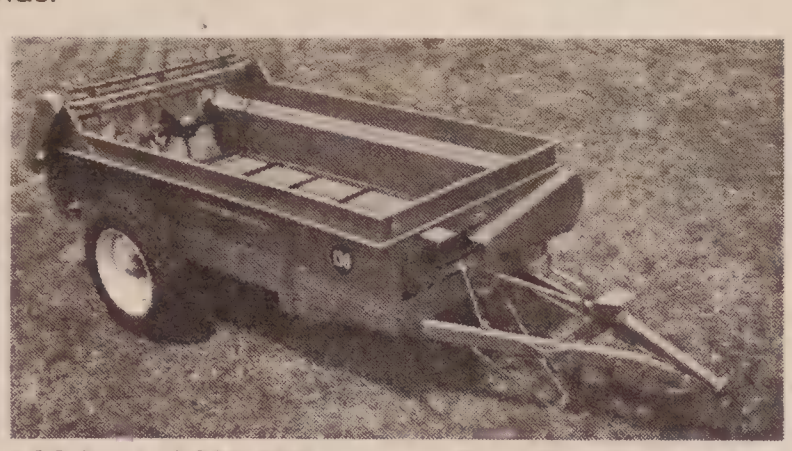
*Suggested retail list price for MF 110 less tires, FOB Des Moines, Iowa



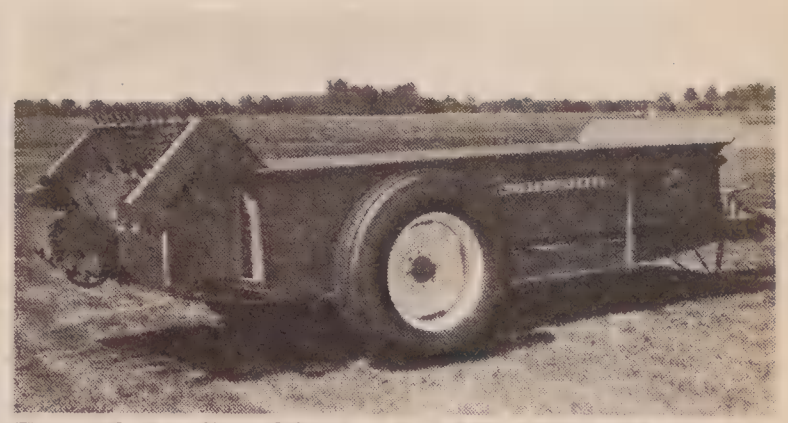
Big 160 bushel MF 160 unloads all types of manure fast. Apron chain is No. 667H pintle chain with average tensile strength of 11,250 pounds.



Rugged 110 bushel MF 110. Built for fast hauling and wide, even spreading. Low profile for easy loading.



130 bushel MF 130 has excellent flotation and carrying capacity with 20" wheels. High-strength 667H pintle apron chain.



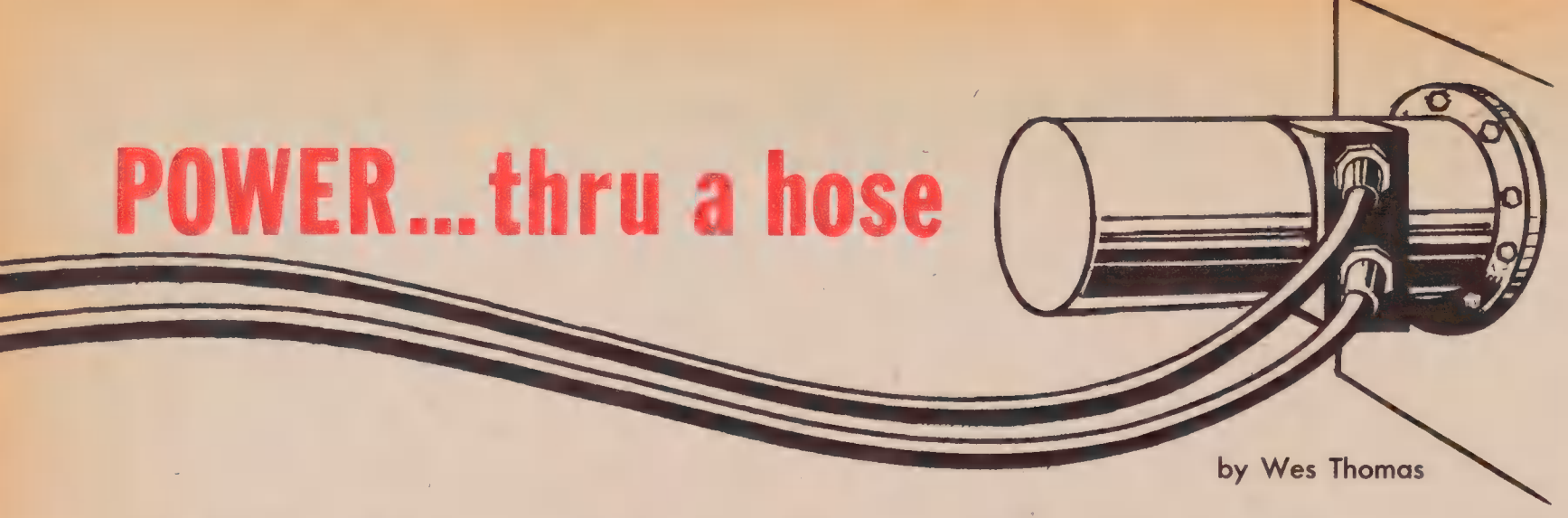
Top-of-the-line 205 bushel MF 205 withstands heavy shocks of loading and unloading even frozen manure. Upper beater and semi-liquid end gate are extra performance options.

Take a closer look at

MASSEY-FERGUSON THE CHALLENGERS

Massey-Ferguson Inc., Des Moines, Iowa

POWER...thru a hose



by Wes Thomas

AT FIRST GLANCE, the use of remote hydraulic motors powered from the tractor hydraulic system to obtain continuous rotary motion seems a logical extension of the use of remote hydraulic cylinders to obtain linear motion. In principle this is true, but in practice a number of complications arise.

Although tractors with built-in hydraulic systems were introduced in the late 1930's, these early hydraulic systems were designed to power a rockshaft, and at the most one remote cylinder. Demands on the system could be met by relatively-small oil reservoirs of 4 to 6-quart capacity, and hydraulic pumps with ratings of 7 to 8 gpm (gallons per minute), at 600 to 900 psi (pounds per square inch), or 2 to 4 gpm at 2500 to 3000 psi.

To meet the demands of multiple remote cylinders in addition to the rockshaft, reservoirs were enlarged to an average of about 10-quart capacity, or the transmission case itself was used as a reservoir. In general, pressure in these systems ranged from 1000 to 1500 psi.

More recently, especially with the introduction of closed-center, multiple-function hydraulic systems, working pressures have increased to about 2000 psi, the transmission case has been used as the reservoir, and oil coolers to maintain the hydraulic-system fluid within acceptable temperature limits have been introduced. It is only with this latter-category hydraulic systems that the use of plug-in, remote hydraulic motors is practical.

At the present time, many of the contemplated uses for remote hydraulic motors are, in effect, replacements for electric motors or small, single-cylinder gasoline engines, since the practical capacity limit is about 10 hp. Thus, the farmer with several tractors of varying age is faced with the prospect of tieing-up his newest, most-productive tractor to provide power for a relatively-light load. The older, less-productive, and usually less-convenient tractors then remain to provide power for the harvesting process and the towing of wagons back and forth to the field.

These requirements, which invert the usual process of using the oldest, least-versatile tractors to provide stationary power, and the newest, most-flexible tractors for the source of harvesting power, may well be an important factor in limiting the present acceptance of remote hydraulic motors. However, even present-day tractors with relatively-large capacity hydraulic systems do not provide the complete solution to this problem, primarily because of the differences in operating characteristics among makes of tractors.

The really widespread use of remote hydraulic motors must await provision for their use . . . specifically designed into the tractor hydraulic system. And the design problems posed by this requirement are so complex that such systems are not going to appear overnight. Tractor manufacturers as a group are acutely aware of the problem, and the desirability of arriving at the best possible solution. Intensive efforts are currently underway accurately to assess the present and future requirements, and to arrive at the most satisfactory system of standards and recommended design practices to meet those requirements.

Why Bother?

If the efforts to solve the knotty problems inherent in the use of remote hydraulic motors are to be justified, these motors obviously must offer significant advantages over alternative methods for accomplishing the same job. Capabilities of remote hydraulic motors which make them attractive include:

1. Ease of control of speed and direction of rotation of output.
2. Ease with which a hydraulic motor can be moved to different parts of the same machine to provide power needed only occasionally, or during specific parts of machine set-up or operation.
3. Flexibility of hoses used to connect motor to hydraulic power source. This flexibility accommodates relative motion between the tractor and a towed implement, between components on the same implement or machine, or between the machine and a second towed implement.
4. Freedom from damage to the motor when it is overloaded or even stalled. Thus no slip clutches or shear pins are required to protect the drive mechanism.
5. Relatively-high power capacity of the hydraulic motor and connecting lines, which often provides a smaller, more compact drive than a comparable mechanical arrangement.

What's The Difficulty?

Problems in the use of hydraulic motors for continuous rotary motion arise from two sources: (1) lack of standardization among the hydraulic systems of different tractor manufacturers; (2) the limited heat-rejection capabilities of present tractor hydraulic systems. These same problems have not arisen with remote hydraulic cylinders used for linear motion output because:

1. Most applications for linear motion are intermittent, with the actuator actually in operation only a very small percentage of the total operating time of the tractor. Thus, any excess heat developed by mismatching of the system components could be dissipated by the hydraulic system between operating cycles.

2. Remote cylinders have been standardized; thus, the tractor manufacturer can tailor the cylinder to the tractor hydraulic system and supply the cylinder as a part of the tractor. The tractor and cylinder can be used with a variety of makes of machines and implements as long as the machine is designed to the standard mounting dimensions and stroke length. However, the hydraulic cylinder cannot necessarily be used with a variety of makes of tractors.

Similarly, in remote hydraulic motors two approaches to standardization for interchangeability are apparent. Supply the remote motor as part of the tractor, or supply the motor as a part of the implement. If the motor is to be supplied as part of the tractor, the motor units must be standardized in regard to output speed or speeds, maximum over-all dimensions, method of mounting, maximum and minimum torque output, drive coupling, and length of connecting hoses.

If the remote hydraulic motor is to be supplied as part of the implement, the tractors must be standardized in regard to working pressure, flow rate, coupling or hook-up devices, and range over which flow can be controlled.

A major factor in determining whether a motor is a tractor part or an implement part is the type hydraulic system used on the tractor.

Open-Center Circuit — The connection of a fixed-displacement motor in effect converts the system to a closed circuit without controls. The motor operates at a fixed speed ratio in relation to the pump, and the load imposed upon the motor determines the pressure in the circuit. When the pressure exceeds the safe working level a relief valve opens; there is no protection for the driven unit except at a maximum torque of the motor.

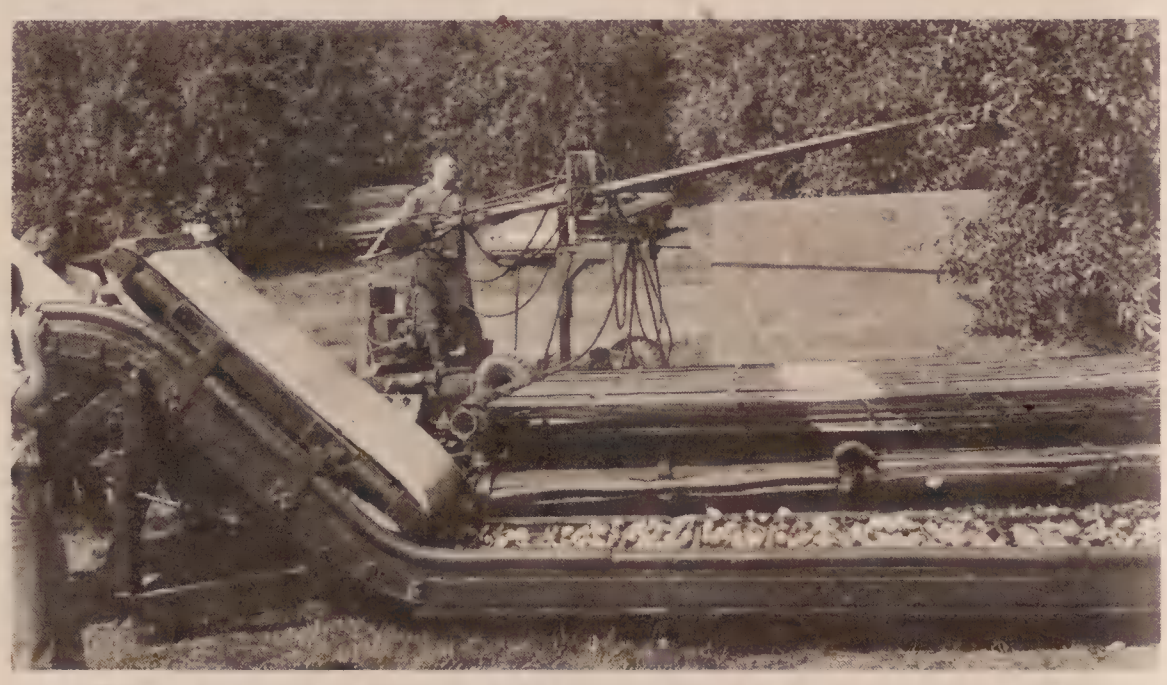
Motor speed can be controlled by bleeding a portion of the pump output back to the reservoir. However, the power expanded through the bleed valve is released as heat, which must be disposed of to prevent system overheating. In addition, the speed control is not accurate because the amount of oil bled through the orifice varies with the pressure . . . hence changes in load result in changes in flow.

Although speed of the motor can be changed by changing the speed of the tractor engine, this is not practical if other equipment being operated requires a definite speed for proper operation.

A variable-displacement hydraulic motor can provide speed control, but some arrangement must be included to prevent over-speeding of the driven machine as the motor displacement is reduced.

If multiple motors are to be used they must be connected in series with each motor requiring the same flow rate.

To avoid violent fluctuations in the speed of the hydraulic motor when other hydraulic functions on the tractor are operated, a separate pump, or at least a separate section of a dual pump, is required to supply the hydraulic motor. While this arrangement is technically feasible, it adds to the cost of the system.



This tree-shaker and fruit-gatherer uses hydraulic power transmission throughout. A gasoline engine mounted on the unit operates the hydraulic system.

Closed-Center Circuit — Any size hydraulic motor may be connected and the flow throttled to secure the desired speed. Motor size is selected to provide the desired output torque based on the constantly-available system pres-

(Continued on page 14)

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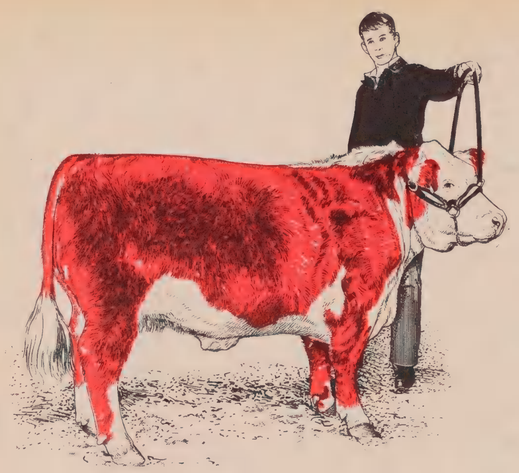
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GUERNSEY

Females:

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Junior Champion — Hanover Hill Dairi Pancy, Henry R. Christal, Yorktown Heights, New York.

Bulls:

Senior and Grand Champion — High Meadows N Jericho, Henry C. Venir, LaFayette, New York.

Junior and Reserve Grand Champion — Valley Charles, Charles F. Rogers, Randolph, New York.

HOLSTEIN-FRIESIAN

Females:

Senior and Grand Champion — Thornlea Tara Hills Flossie, R. P. Heffering and Kenneth Travena, Amenia, New York.

Reserve Grand Champion — Moncony Palmyra Pauly, R. P. Heffering and Kenneth Travena, Amenia, New York.

Junior Champion — Carter-Dale Reflection Rita, Hapeman Hill Homestead, Red Hook, New York.

Bulls:

Senior and Grand Champion — Sher-May Crisscross Mingo, Sherman Wm. Herrington, Hoosick Falls, New York.

Reserve Grand Champion — Cochran Criss, Stanton Hudson, Fort Plain, New York.

Junior Champion — Canfield Jubilant Marquis, Francis Gomex and Orison Cook, Pine Plains, New York.

JERSEY

Females:

Senior and Grand Champion — Advancer Jesters Sweetfern, Vaucluse Farm, Newport, Rhode Island.

Reserve Grand Champion — Borgs Valiant Samares, Vaucluse Farms, Newport, Rhode Island.

Junior Champion — Vaucluse Star Jenny, Vaucluse Farm, Newport, Rhode Island.

Bulls:

Senior and Grand Champion — Jester Basil Julian, C. Herbert Staring, Lowville, New York.

Reserve Grand Champion — Golden Stray Miracle, Stephens Brothers, Honesdale, Pennsylvania.

Junior Champion — Vaucluse Star Mascot, Vaucluse Farm, Newport, Rhode Island.

MILKING SHORTHORN

Females:

Senior and Grand Champion — Homestead Bell 3d, Sharlene Liebeck, Churchville, New York.

Reserve Grand Champion — Lady Lucy 15th, Robert J. Brew, Bergen, New York.

Junior Champion — Primrose Beauty 36th, Robert A. Brew, Bergen, New York.

Bulls:

Senior and Grand Champion — Marbert Blackwood King, Robert A. Brew, Bergen, New York.

Junior and Reserve Grand Champion — White's Wild Gwyn, J. M. and H. M. White, Marathon, New York.

ABERDEEN ANGUS

Females:

Senior and Grand Champion — Hedgerows Pauline 14, Hedgerows Farm, West Cornwall, Connecticut.

Junior and Reserve Grand Champion — Walbridge Pauline L4, Walbridge Farm, Millbrook, New York.

Bulls:

Senior and Grand Champion — Walbridge Bonaparte, Walbridge Farm, Millbrook, New York.

Reserve Grand Champion — Eight Bells Persuer, Eight Bells Farm, Brewster, New York.

Junior Champion — Banner of Walbridge 3, Walbridge Farm, Millbrook, New York.

HEREFORD

Females:

Champion — K F Jessica Mixer 20, Kiyiwana Farm, Stormville, New York.

Reserve Champion — K F Jessica Mixer 09, Kiyiwana Farm, Stormville, New York.

Bulls:

Champion — C M F Husker Promino 3, Cobbler Mountain Farms, Delaplane, Virginia.

Reserve Champion — K F Jesse Mixer 22, Kiyiwana Farms, Stormville, New York.

SHORTHORNS

Females:

Senior and Grand Champion — Sagamon Ramsden 4th, T. H. Snethen, Dewittville, New York.

Reserve Grand Champion — Glen Cove Miss Mepie, Worden Brothers, Windsor, New York.

Junior Champion — Glen Cove Jean Nonpareil, Worden Brothers, Windsor, New York.

Bulls:

Senior and Grand Champion — Sagamon Constructor, T. H. Snethen, Dewittville, New York.

Reserve Grand Champion — Glen Cove Crusader, Worden Brothers, Windsor, New York.

Junior Champion — Sagamon Highland Leader, T. H. Snethen, Dewittville, New York.

SHEEP

Exhibitors of champion rams in the various breeds were:

Cheviot — Eloise Spraker, Bath, New York; Columbia — Harry Clauss, Canandaigua, New York; Corriedale — Patricia L. and Jack F. Baird, Spencerport, New York; Dorset — Keith Stumbo, Lima, New York; Hampshire — Marcus Thompson, Chepachet, Rhode Island; Montadale — Dr. F. E. Lindblom and Son, Russell, Pennsylvania; Oxford — Vera L. Bigelow, Camillus, New York; Rambouillet — Kenneth T. Moore, Nichols, New York; Shropshire — Kenneth T. Moore, Nichols, New York; Southdown — W. G. Carpenter and Sons, Jefferson, Maryland; Suffolk — Daniel Fitzpatrick, Wayland, New York; Tunis — Collene Fitzpatrick, Wayland, New York.

Exhibitors of champion ewes in the various breeds were:

Cheviot — J. W. Cook and Sons, Trumansburg, New York; Columbia — Harry Clauss, Canandaigua, New York; Corriedale — Patricia L. and Jack F. Baird, Spencerport, New York; Dorset — Elizabeth S. Gray, Woodbine, Maryland; Hampshire — Kenneth Spraker, Bath, New York; Montadale — William Viherek, Jr., North Scituate, Rhode Island; Oxford — Vera L. Bigelow, Camillus, New York; Rambouillet — Kenneth T. Moore, Nichols, New York; Shropshire — Edward Peckam, Belchertown, Massachusetts; Southdown — W. G. Carpenter and Sons, Jefferson, Maryland; Suffolk — Ronald J. Hunt, Ithaca, New York; Tunis — Eloise Spraker, Bath, New York.

SWINE

Champion ribbons in the swine breeds were awarded as follows:

Berkshire — Grand Champion boar, Wendell McKissick, Slippery Rock, Pennsylvania; grand champion sow, Franlee Farms, Victor, New York.

Duroc — Grand Champion boar and grand champion sow, Happy Acres Farms, Waterloo, New York.

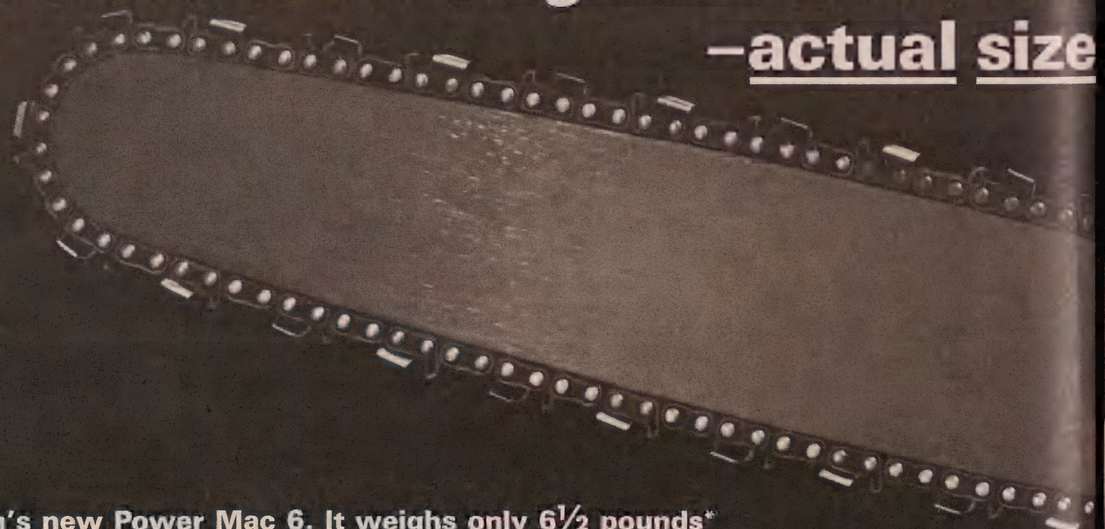
Poland China — Grand champion boar, Clair Hartman, Gratz, Pennsylvania; grand champion sow, Richard P. Sholley, Jonestown, Pennsylvania.

Hampshire — Grand champion boar and grand champion sow, Real Farms, Inc., Tipton, Pennsylvania.

Yorkshire — Grand champion boar, William Nudd, Irving, New York; grand champion sow, Real Farms Inc., Tipton, Pennsylvania.

Champion barrow — Park F. Thomas, Beavertown, Pennsylvania.

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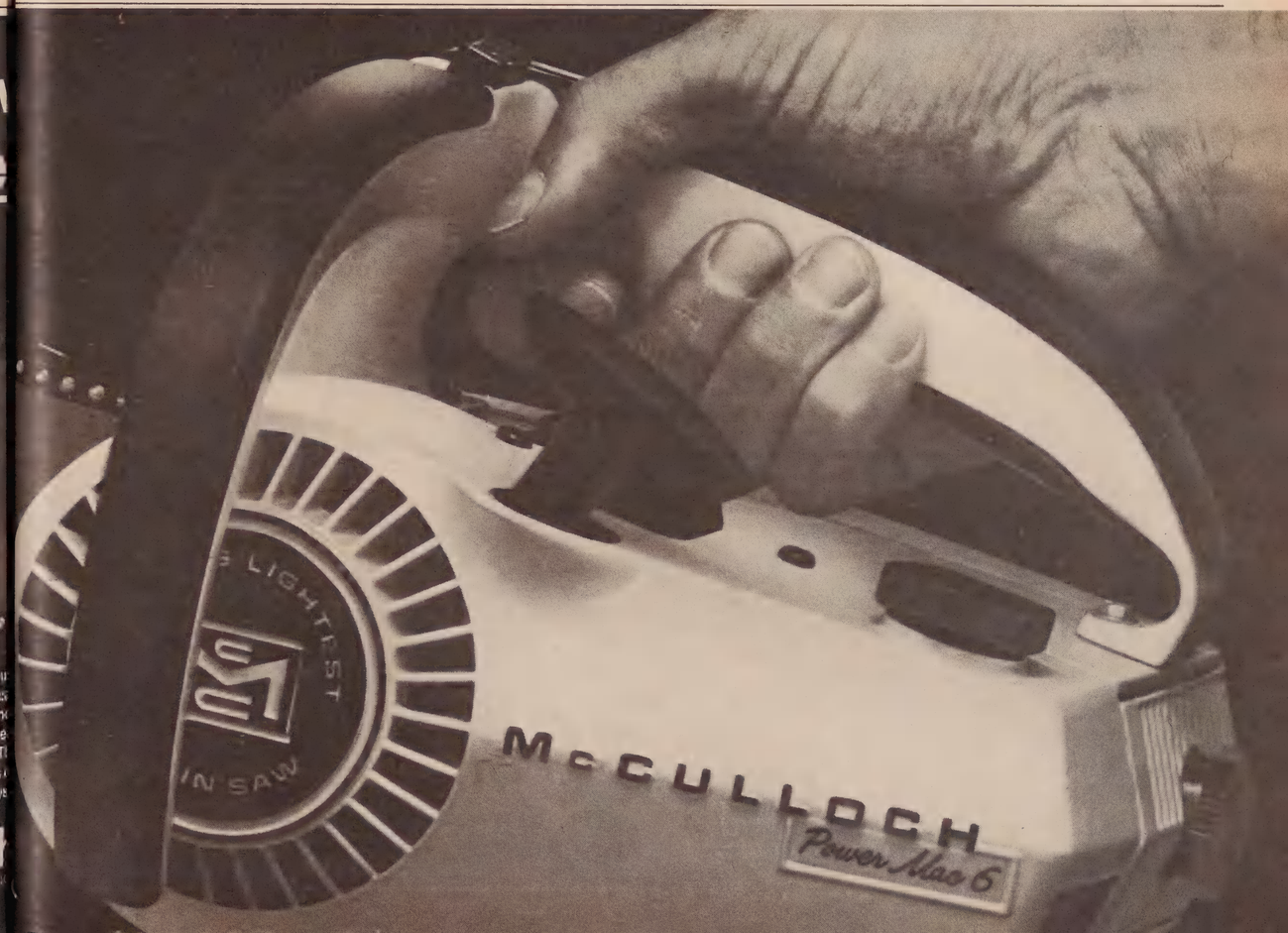
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AA-10

Hydraulic motors

(Continued from page 10)

sure. The relatively-constant pressure also provides more accurate speed control when the load changes.

Several motors may be connected to a constant pressure system as long as their total displacement at the desired operating speed does not exceed the flow available from the circuit.

Efficiency of the closed-center circuit is relatively-high because the displacement of the pump is only that required to meet the demands of the system at any particular time. When demands decline, pump output reduces.

Traditionally, tractor hydraulic systems have been of the open-center type. However, a variety of technical reasons completely separate from the considerations of remote hydraulic motors has encouraged a trend within recent years to the closed-center type of system. This trend appears likely to continue in the future.

Look-Alike Motors

To provide maximum interchangeability, and to make practical the use of the same hydraulic motor on a number of different seasonally-used machines, some standardization of motors is also required. Primarily these standards relate to mounting and attaching.

Just as electric motors are available in more than one standard speed, it may be necessary to establish more than one speed range for hydraulic motors. At present, it appears that a total of three speed ranges, with top speeds of approximately 700, 1400, and 2000 rpm at 6 gpm input flow might be a practical solution. In addition, the splines on the shaft for transmitting the power, the dimensions for attaching the motor to the implement, the over-all dimensions of the motor, and the hose-coupling fittings must be standardized.

Future model tractors designed to accommodate remote hydraulic motors will include a number of features not now on present tractors. Foremost among these will be higher-capacity oil coolers capable of dissipating on a continuous basis the heat produced by remote-motor operation. In addition, enough instrumentation to indicate what is happening in the hydraulic system will be desirable. This would include an oil temperature gauge so that the operator can monitor system temperature to ensure that it is not rising above acceptable limits, an oil-pressure gauge so that we can determine the load on the system, and probably a flow-control valve which can be adjusted by a lever accessible to the operator. Thus he can control the speed of the machine being operated independent of tractor speed.

FLUID POWER

A completely-revised fluid power text, now in its sixth printing, with all circuit drawings having been redone using the new United States of America Standard Institute symbols, has been published by Womack Machine Supply Co., 2010 Shea Road, Dallas, Texas.

The book, entitled "Fluid Power Text," contains many original drawings, has a minimum of theory and formulae, and gives data on design, selection, operation and maintenance of fluid power pumps, valves, cylinders, motors and acessories. It has a variety of charts and tables on volume, horsepower, flow, speeds, pressures and safety factors for popular components. The book contains 183 pages, is 8½×11 in size, with permanent wrap-around paper cover and sewed binding, and sells for $5.95 per copy, postage prepaid.

The Song of the Lazy Farmer



No other time of year at all is half as wonderful as fall. When else does nature go all out so you want joyfully to shout? Not winter's white nor summer's green, nor even springtime in between, puts on a colorful display to match what I can see today. The trees bear leaves of ev'ry hue, the sky was never quite so blue, and even brand-new snow can't be as white as clouds appear to me. And there is something 'bout the air with which there's nothing to compare; it has a fresher, cleaner smell, with just a touch of cold to tell that snow will fly before too long and winter winds will howl their song.

But even without painted trees or touch of winter on the breeze, I'd still like autumn much the best because it gives more time to rest. Oh, sure, if you're like neighbor is, and rush around with zoom and whiz, you're hurrying to pick the corn and helping fall pigs to be born; or else you're patching up the shed and reaching 'way above your head to get the storm sash all put in before the zero nights begin. But all that kind of stuff can wait, next month ain't going to be too late; besides, there's not much time left yet in which it's warm enough to set and rest beneath my fav'rite tree, out where Mirandy can't spot me.

American Agriculturist, October, 1968

Food For The Spirit



by Robert Clingan

"DON'T PRAY— THIS IS SERIOUS"

A church was divided in regard to a set of issues within its own life. A public meeting had been called to settle the controversy. As the meeting progressed, tension mounted. Finally, a saintly old lady timidly suggested, "Why don't we pray?" Her son snapped, "Shut up, Mother, this is serious."

Sadly, his attitude too often reflects our common practice. Prayer is isolated from the decision-making places of life. We turn to prayer for comfort . . . in bereavement and for the healing of bruised spirits . . . as well we should, but it is not a basic instrument of or a prelude to decision-making.

The factors that are considered, the alternatives that are weighed, and the decision that is finally reached are all done without recourse to prayer. If anyone were to suggest prayer as a first step or a primary consideration, he would be given the look an indulgent parent gives a child who has come up with an impractical suggestion. We would be all too much like the young man in our story. "Don't pray, this is serious."

This absence of prayer from significant decision-making is reflected at national levels. Our President calls for national days of prayer and national days of mourning. Yet when his "Commission on Civil Disorder," the so-called Kerner Report, made recommendations for meeting the racial crisis, it did not even mention the church. All considerations of a spiritual appraisal or spiritual resources in facing the future were completely absent.

Once again, there was no thought of prayer. This was serious.

There is a lostness in the life of us all. We need some new perspectives for our decision-making, as individuals, as communities, as a nation. The perspective we need can best be found in the spirit of prayer, when our lives are open to the guidance that God alone would give.

Above all, let us remember our Lord, Jesus Christ, who prayed before he named his disciples, who prayed before he spent a day teaching and healing, and who prayed before he faced his final test in the Garden of Gethsemane the night before his crucifixion. Surely if He needed prayer for His hours of great decision, how much more do you and I need it now!

Dates to Remember

Oct. 5 - New York State Sale Classic, Sale Pavilion, Fairgrounds, Canandaigua, N.Y.

Oct. 5-6 - Fall Foliage Festival, Warner, N.H.

Oct. 6-12- National 4-H Week.

Oct. 6-12 - National Fire Prevention Week.

Oct. 7 - Youthpower Week.

Oct. 8-10 - Neppco Exposition, Farm Show Building, Harrisburg, Pa.

Oct. 9-19 - National Apple Week Celebration.

Oct. 10-11 - Conference on Advances in Poultry and Egg Processing, The Pennsylvania State University College of Agriculture, University Park, Pa.

Oct. 12 - New England Angus Association Fall Sale and Sweepstake, Whitney Lane Farms, Harvard, Mass.

Oct. 13-17 - National Association of County Agricultural Agents annual meeting, Louisville, Ky.

Oct. 16 - Annual Milk Marketing Conference of Eastern Milk Producers Cooperative, Drumlins Country Club, Syracuse, N.Y.

Oct. 16-17 - Dairymen's League Annual Meeting, Buffalo, N.Y.

Oct. 19 - Agricultural Sciences Career Day, University of Delaware, Dover, Del.

Oct. 22-23 - Third Annual National Meeting on Poultry Condemnations, Salisbury, Md.

Oct. 24 - Open House, Eastern Utilization Research Laboratory of U. S. Department of Agriculture, Wyndmoor, Pa.

Oct. 24-25 - Annual Meeting Agway, Inc., Onondaga County War Memorial Building, Syracuse, N.Y.

Oct. 28-31 - 1968 Session New York State Grange, Fredonia, N.Y.

Oct. 29-31 - Cornell University's 1968 Nutrition Conference for Feed Manufacturers, Statler Hilton Hotel, Buffalo, N.Y.

Oct. 31-Nov. 1 - New York DHIC Annual Meeting, Kiamesha Lake, N.Y.

Nov. 9-16 - Twelfth Annual Pennsylvania Livestock Exhibition, Farm Show Building, Harrisburg, Pa.



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*Patent applied for.

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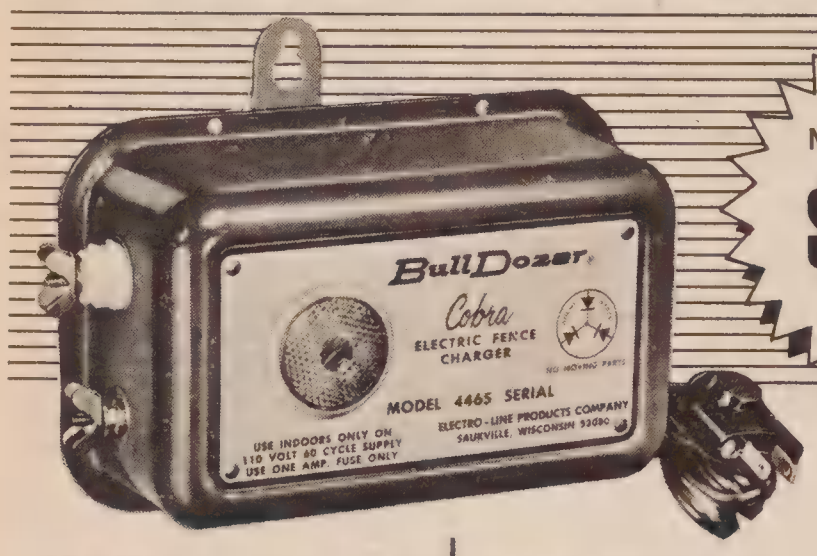
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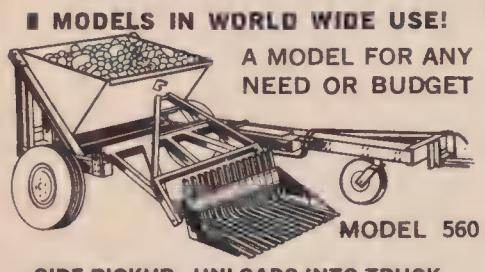
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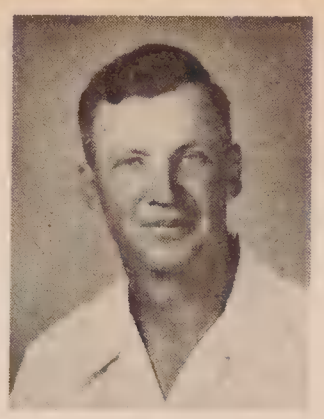
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Gayway Farm Notes

by HAROLD HAWLEY

SPOILED

For twenty years we've talked about getting rid of oats in the rotation. For the last five we have gradually been doing something about it. First we tried chopping and feeding oats green and ensiling some. Then for two years we tried clear seeding alfalfa and forgetting the oats. This was better, but we weren't quite all that sold, so this year we sowed Orbit oats and seeded in them.

We knew this was a step backward . . . and what happened? Weed control was excellent; weather was ideal for the new seedings and for the oats; harvest-time conditions were unusual, what with the oats standing well and the weather co-operating. Yields were 30-40 bushels above average. So here we are with 60-70 tons of excellent cow feed which we wouldn't have had otherwise, plus excellent seedings. It's enough to set back progress another ten years. It will undoubtedly take a most persuasive letter at just the right time from the Extension Department to get us back on the right track again.

Actually it is easy to kid oneself into thinking that with the new oat variety, oats will be standing most years. I've been guilty of this kind of wishful thinking before. Then if one figures his expectations on this year's yields instead of his average yields over the past ten years, he can make a pretty good case for growing oats. I'm not quite sure whether it's just a case of resisting change and progress, just the eternal optimist in most of us, or what it is that keeps us growing oats at all . . . but we probably will try a few again next year!

BANISH THE BOARD

As salaries of teachers and supervisors rise and as school budgets increase due to this, and to the escalation of other cost items, the number of budgets voted down gets to be sizeable. Folks just start rebelling at the tax load . . . all this in spite of the fact that in many rural upstate school districts local real estate taxes only pay 20-30 percent of the total educational bill.

The Commissioner of Education has been discussing proposals to solve the difficulty. He suggests that the power to tax might be taken from the local school districts and placed in the hands of the State Education Department. This would be in order to control funds distributed for every purpose from integration to education.

There is now before the Board of Regents a request by the Commissioner seeking authority to consolidate school districts for integration purposes. The thought is that all political units near large urban centers would be combined into one school district. This would facilitate the planning of busing kids hither and yon in the new larger district, without the need to get the blessing of the folks in the former districts.

The Commissioner further has shown interest in the idea of negotiating teacher salaries on a statewide basis rather than on a local basis by each district.

Really, there is no need for alarm in all the suggestions. All that is involved is **giving up local control!**

The Commissioner rightly recognizes that a lot of folks feel pretty strongly about this one, and might resist. He comforts them with the thought that safeguards would be set up to prevent undue state control.

Most of us readily recognize that it takes time to bring about some changes on a local level when the collective mind of a community has to be convinced that something different is better even if it is expensive. It's obvious that we can have action faster if we merely turn over the thinking and policy-making chores to other folks who don't have to pay the bills.

If the record was clear and consistent that the professional educators were right regularly, and if the state was a homogenous bunch of communities, districts, and people, just maybe we might go along. None of these conditions seems to exist, so we feel there can be only one right answer to the Commissioner's suggestions. Let's not be so zealous for a great social revolution overnight. Let's not forget that there is much dedicated talent and ability back where the folks live . . . talent that has muddled through to give us a pretty fair educational system up to now. Let's not sell these folks short as to their capacity to change, as to their ability to understand and meet the needs of the times, or of their ability to handle a dollar as though it had not yet gone out of style.

While disapproving the Commissioner's proposals, none of us can forget that if we ask to retain local control we have a very real obligation to see that we are willing and able to grapple with the

(Continued on next page)

educational problems of our day in such a way that none of the kids will be short-changed. I have that much faith in the school boards, their district principals, and their district superintendents who must do these jobs across the State.

THREE ROW HEADS YET

With the advent of narrow corn rows, six-row planters were soon available. Now many of us are being urged to buy a three-row head for our forage harvesters. It seems many salesmen choose to ignore the obvious fact that for a guy still using a four-row planter, a three-row head is about the last thing he wants or can use.

It may label one as non-progressive to admit it, but we bought a new four-row planter for 36-inch rows this year. Why? It's simply a matter of money. First off, we have a fairly new 4-row cultivator which will not narrow up to work on 30-inch rows. We bought it so we could add 2 rows to it and handle six 36-inch rows. Our mounted corn picker, which is also fairly new, will not pick rows closer than 34 inches.

Our planter was about worn out. The obvious thing was to buy a 6-row rig which would plant 36-inch rows. Maybe we started a little late, but we soon found out that we would not get delivery on such a planter in time to use it. Six narrow-row rigs were available in most any brand, but not for 6 wide rows.

Any evidence we have seen here suggests that the 30-inch rows do not increase yields that much over 36-inch rows if the plant population is the same. Therefore, it didn't make sense to change cultivators, picker, and the head on the forage harvester just so we could plant 30-inch rows.

What we did do was to buy the 24 cell plastic plates for our corn planter so we could drop seed as close as we wanted to. We got it in the ground every 4½-5 inches so our plant population is about as high as we dare have it. One of these days we will get a six or an eight-row planter for 36-inch rows and our cultivating and harvesting equipment will still fit the rows.

I have no argument with those who go to narrower rows. My only gripe is the salesman who glosses over the other problems and costs created by a switch to narrow rows. One better get the whole picture before he buys a part of the system, because he'll end up paying for the whole changeover before he gets done. Is it worth it?

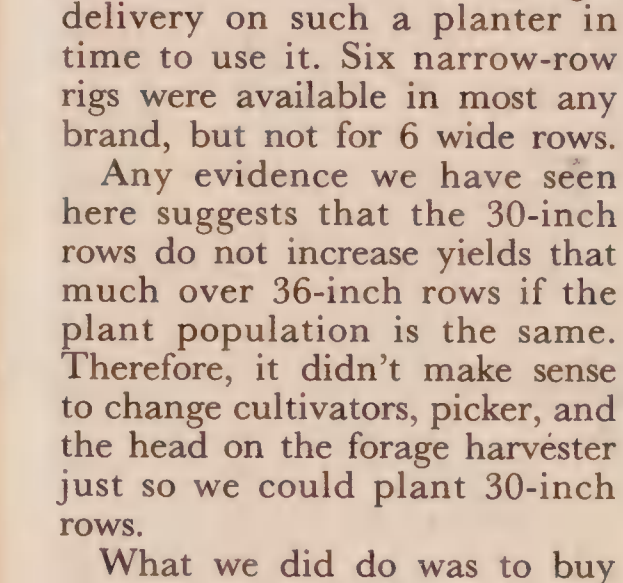
BUSINESS TRIPS

A busload of farmers making a tour of some dairy farms in our area spent a short time around our diggings. One man remarked it was a little hard to get away but it was nice to have a little vacation. Fair enough!

A couple of carloads of men employed by an industry in this state were here for a short stop. They were on a business trip. Their vacation would come at some other time.

There is a slight confusion of terms here. It's pretty certain that for many farmers just a chance to take a breather and get away for a couple of days is a real vacation, even though the trip is one on which they "talk shop" most of the time and visit farms like the one they just left back home. I mentioned this to an urban acquaintance and he scoffed at the idea of labelling what was clearly (to him) a business trip a vacation. He wasn't quite satisfied with my explanation that for a man who really enjoys his work it is a real source of enjoyment to travel around with other farmers to see how someone else does the job, and maybe learn how to do one's own job a little better or easier.

Some call this a bad case of being married to one's job, but it seems to me that the happiest folks I've known weren't necessarily those who had the shortest hours and the longest vacations. Rather it was folks who enjoyed their work about as well as anything else they did. They were doing the job they most wanted to do in this world and if they were doing it well they had the satisfaction of accomplishment and pride . . . and you can't beat that combination for keeping a person hale and happy.



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CORN GROWER

JACOB HAURY of Stanley, New York, came in second in the 1967 DeKalb corn-yield contest . . . at 177.96 bushels of dried, shelled corn per acre.

He plows with a clodbuster hooked behind the plow, and for the last few years has planted corn without further tillage . . . on the "home acres." However, he's renting a lot of land, and most of it has soil running a bit heavier . . . so he works that land over with disc, drag, and cultipacker. He uses a variety of tillage practices . . . depending on the situation . . . that can be summed up with the good advice to "till no more than you have to."

In 1968, he plowed down anhydrous ammonia at the rate of 120 pounds of N per acre . . . at a cost of 7 cents per pound of N. Before plowing, he applies 250 pounds of 0-0-60, and then puts on 250 pounds of 18-46-0 with the planter.

Jake uses a 4-row planter, used heptachlor applied to the seed as an insecticide for the first time in 1968. He shoots for a harvest-stand plant population of 25,000 to 28,000 per acre in rows 30 inches apart.

No Corn Cultivation

No corn cultivation is the rule here . . . a mixture of Atrazine (1 pound actual) plus 2,4-D (one pint) and a gallon of spray oil does the weed-killing job. It's applied complete coverage when the corn is about 4 inches high, and the 2,4-D is taken out if corn gets higher than that (about half the acreage doesn't get the 2,4-D . . . just Atrazine and oil).

He'd like to go to narrower rows, but he does a lot of custom work and to go narrower would mean he'd not be geared up to fit the cropping practices of neighboring farmers. Jake combines and batch-dries a lot of corn, also has his own cleaner so he can deliver directly to the railroad grain cars for shipment. If everything is going right, and the drier operating around the clock, he can harvest 2000 bushels of corn in a day.

Other crops here include table beets, red beans, and wheat.



DeKalb agronomist Dr. Henry Shands is concentrating his efforts on soft wheat types . . . the kind most widely grown in the Northeast.

HYBRID WHEAT

The DeKalb Agricultural Association released pilot quantities of hybrid wheat for fall planting this year. Farmers have been waiting for the advent of large-scale availability of hybrid wheat for a number of years, but there are problems yet to solve.

A key problem all along has been that of fertility restoration in seed produced from parents one of which is male-sterile. And the hybrid vigor that promises a 25 percent increase in wheat yields is not enough by itself to warrant all the excitement. Desirable wheat varieties . . . hybrid or not . . . must combine a number of attributes such as disease and insect resistance, good milling characteristics, and adaptability to the soils and climate of the area where they are grown.

Big Acreage

Furthermore, with 50 million acres of wheat in the U.S. . . . and 500 million acres in the world . . . the production of seed obviously involves enormous acreages. Since wheat is normally self-pollinating, its reproductive parts do not naturally lend themselves to cross pollination . . . which is necessary to commercially produce hybrid seed.

So it may be awhile before northeastern farmers are planting hybrid wheat . . . but DeKalb and other seed companies, as well as college research men, are bringing that day nearer all the time.

FOR PROTECTION OF LIVESTOCK WATKINS provides a FULL LINE of TRACE MINERALIZED FARM and FEED SALT !

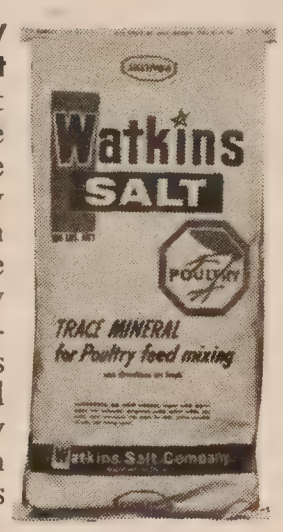
Watkins Free Choice Feeding Trace Mineral Salt
Prepared precisely for livestock, except poultry, this Watkins free choice feeding trace mineral salt is to be kept before farm animals at all times. As with all Watkins Trace Mineral Salts, it contains an anti-caking agent for easy, sure handling and pouring.



Watkins Feed Mixing Trace Mineral Salt
Formulated with the required trace minerals specifically for livestock feed mixing and manufacture. To be used in mixed feeds only, directions call for the same quantity of this trace mineral mixing salt as you would use plain salt.



Watkins Poultry Trace Mineral Salt
This trace mineral salt is formulated with the correct amount of trace minerals for poultry feeds. It contains high levels of manganese and zinc shown by research to be necessary for poultry. It is not to be used to feed free choice, but only for mixing and in the same quantities as plain salt.



Watkins Swine Trace Mineral Salt
Specifically made for swine, this trace mineral salt has a high zinc content to aid in prevention and cure of the swine skin disease, parakeratosis. It also contains the correct amount of other trace minerals for feed mixing and manufacture and is to be used only in feed mixing, not free choice. Use the same amount as plain salt.



Watkins Medicated Trace Mineral Salt With EDDI
Active drug ingredient is Ethylenediamine Dihydriodide, called EDDI, for the purpose of helping prevent foot rot, soft tissue lumpy jaw and simple goiter in dairy and beef cattle. It is to be used in place of plain or other trace mineral salt because it also supplies the regular amount of salt and supplemental trace minerals.



Watkins Custom Mix Trace Mineral Salt
A special trace mineral salt, this is custom formulated to the customer's exact specifications and can be made for precise purposes. As required, Watkins Salt Company can make this custom mix to meet the customer's own formula. Bag imprint, including directions for mixing or feeding, will be imprinted at the factory to meet specifications. Contact your Watkins representative or administrative offices direct.

Watkins Trace Mineral Salt Blocks and Bricks
Formed under high pressure in the latest type equipment, Watkins trace mineral salt blocks withstand the rigors of weather and use. They are mixed with the known requirements of trace minerals for supplemental diet for livestock. Blocks are available in regular trace mineral and medicated trace mineral salt.

Also available in four pound trace mineral salt bricks.







WATKINS SALT COMPANY
Watkins Glen, New York



LIVESTOCK



Multiple Births — It was recently disclosed by the USDA that multiple births in beef cows can be raised to 44 percent with hormones.

Cows that conceived immediately following treatment produced 133 marketable calves per 100, compared to the estimated current beef industry average of 95 calves per 100 pregnant cows.

Although this cannot be taken as a direct prediction of the future of cattle breeding, it does indicate that hormones readily available to veterinarians at reasonable cost can increase the calving percentage considerably.

Two hormones were used in the trials. One pregnant mare serum (PMS), caused cows to develop more than one ovum per estros cycle. The second hormone, chorionic gonadotriphin (CG), caused the ovary to shed these multiple ova so that they could be fertilized.

Research started with 81 cows at USDA's Fort Reno Research Station showed that 52 cows conceived during first heat and produced 29 single calves, 12 sets of twins, 8 sets of triplets, 2 sets of quadruplets, and 1 set of quintuplets.

Of these 90 calves, 69 are still living. But the multiple births were associated with 11 cases of retained placentas, a serious recurring problem at the present stage of research progress.

New Product — A new pork cut to stimulate consumer demand through added convenience and distinctive taste has been announced by Armour and Company.

Called VERIBEST LEG O' PORK, this kitchen-ready cut is a fresh, skinless, boneless ham, rolled and tied. Being fresh rather than cured lends a flavor that sets it apart from other hams. This product comes in two weight ranges . . . under 10 pounds, and from 10-14 pounds.

Yield Grades — A new publication from the U.S. Department of Agriculture's Consumer and Marketing Service explains how to pick out beef with a high ratio of lean meat to fat and bone while the steer is still walking around in the feed lot. Titled "Yield Grades for Beef?"

The pamphlet explains that the yield grade is based on four factors which indicate the amount of salable beef a carcass will produce: (1) the amount of external fat or the amount of fat over the outside of the carcass; (2) the size of the ribeye — an indication of muscling: (3) the amount of kidney, pelvic, and heart fat; and (4) carcass weight. The yield grade can be predicted for live cattle by observing their muscling and degree of fatness.

For a copy of "Yield Grades For Beef" (MB-45), send a postcard request to Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Please include your zip code.

N. Y. S. Hereford Association — A statewide junior Hereford association has been organized, with 43 charter members. Officers include: Stephen Dennis, Jasper, president; Linda McArdle, Lockport, first vice-president; Karen Ball, Canastota, second vice-president; Cora Shallenberg, Westernville, secretary; Barbara Guenther, Hamburg, treasurer; James Fisher, Sodus, reporter; and Rhonda Reichman, Newark Valley, director.

TOP DHIA HERDS

Gerald Stoeckel of Bloomville, New York, had a repeat performance for the 1967-68 New York DHIA year . . . breaking the 800-pound fat barrier again to post a record herd average of 22,521 pounds of milk, 833 pounds of fat in a herd of 41 cows. Previously, his herd had been the first in the nation on DHIA test to have a butterfat average of more than 800 pounds per cow.

Other top Empire State herds include:

Virgil Briggs, Deposit . . . 51 cows . . . 19,453M and 734F.

Thomas Burns, Bovina Center . . . 13 cows . . . 19,760M . . . 714F.

John Fairbairn, Arkville . . . 21 cows . . . 18,415M . . . 711F.

Henry Hoysradt, Ancramdale . . . 43 cows . . . 18,618M . . . 730F.

John & Tony Kersmanc, Worcester . . . 48 cows . . . 18,307M . . . 727F.

NYS Agr. & Tech. College, Delhi . . . 24 cows . . . 18,227M . . . 719F.

Merton Plaisted, Hammondsport . . . 25 cows . . . 20,045M . . . 775F.

Paul Schintzius, South Wales . . . 42 cows . . . 19,218M . . . 709F.

BUY YOURSELF SOME SPRINGTIME AT FALL DISCOUNT PRICES

AGWAY FALL FERTILIZER DISCOUNTS

October	November	December
$6.00 per ton	$5.00 per ton	$4.00 per ton

Having phosphorus and potash already on the land is a whopping big advantage when you face a wet spring. And come the spring rush, what wouldn't you pay for a few extra days? Buy that time now.

Just spread Agway high-analysis phosphorus and potash fertilizers at big fall discounts—$6.00 a ton discount in October, $5.00 a ton in November, and $4.00 a ton in December. And you can have Agway certified application equipment spread it for you. Then, when spring plowing, planting and spraying all need doing at once, you've got the fertilizer put down and you've saved big money besides.

On cropland, you'll be in good shape to follow with starter and nitrogen. On legumes, your fertilizing job is done for another year.

MORE REASONS WHY

☐ Spreading is more economical, easier, and faster in fall and winter. Ground is firm, so you make better time, use less fuel; equipment doesn't cut in and bog down. And Agway can do it for you. ☐ You release labor and equipment for spring rush work. ☐ You can plant earlier for bigger yields—as much of your spring work will have been done last fall and winter. ☐ Fall phosphorus and potash on legumes help reduce winter kill. You get bigger first and second cuttings. ☐ Low-cost winter storage: storing your phosphorus and potash on the land costs nothing, saves handling twice, in and out of storage.

☐ Save more money: Agway straight nitrogen is less expensive than the nitrogen in mixed fertilizers; you can plow down, disc in, or even sidedress nitrogen next spring. ☐ Make money and save precious spring prime time with Agway's fall and winter fertilizer program. Call Agway now and order your Agway phosphorus and potash for fall and winter spreading.

Spread it now—store it now on your farm. Either way, you'll make money on high-analysis Agway Fertilizers. Save even more by paying now and by buying fertilizers in bulk. Call your order in today!

Complete Crop Service Agway

Take it easy... take a Holiday



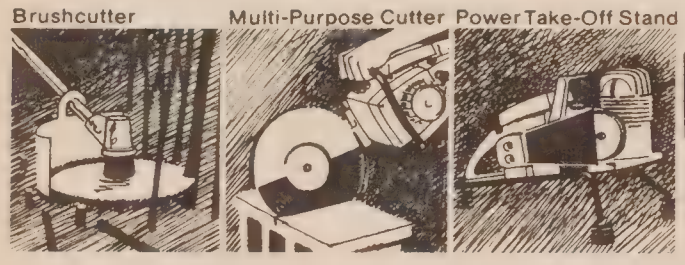
The lean, hungry, muscular Pioneer

The Pioneer Holiday *really* earns its keep. It's easy-to-handle, lightweight, and powerful, with enough muscle to speed through the toughest woodcutting jobs. Adapts to take on a Brushcutter for stand-up clearing of brush and weeds. Or a Multi-Purpose Cutter to slice through concrete, steel, fiberboard. Or you can quickly convert it to power a pump, a compressor, a winch, you name it.

The name fits. A Holiday because it lets you take it easy. Rugged. Dependable. All muscle. Get your hands on one of the three Pioneer Holiday chain saws. Sized right... priced right! And ask your dealer about Holiday and its optional add-on versatility.

With add-on versatility!

Brushcutter | Multi-Purpose Cutter | Power Take-Off Stand



PIONEER

Galesburg, Illinois, U.S.A.
Peterborough, Ontario, Canada
by the manufacturers of Johnson & Evinrude outboard motors

SPRAY IT ON...OR PAINT IT ON
YOU CAN'T BEAT
Dr. Naylor's **BLU-KOTE**
for COW POX*• RINGWORM • TEAT SORES • GALL SORES



Dozens of uses for all farm animals... Blu-Kote is an antiseptic, protective wound dressing that combats both pus-producing bacteria and common fungus infections. Covers the wound with quick-drying, penetrating coating, dries up secretions, controls secondary infection.*

Easy to use—just paint it on or spray it on! Blu-Kote provides lasting antiseptic contact, promotes clean, rapid healing. Try it soon...

NEW SPRAY CAN

Top first aid treatment for minor surface wounds, hard-to-reach sores. Favorite container with hog, sheep and cattle ranchers . . . convenient to carry in saddle or car . . . easy to spot treated animals after application. 6 oz. spray can . . . $1.29 at dealers or mailed postpaid.

DAUBER BOTTLE

Dauber works best for treating Cow Pox sores you can reach with it. Application for Ringworm around eyes and face of dairy animals is better controlled with dauber. 4 oz. dauber bottle . . . $1.00 at dealers or mailed postpaid.



H. W. NAYLOR CO. • MORRIS 9, N. Y.

Dollar Guide

For the Northeast Farmer

DAIRYMEN IN THE NORTHEAST will get more for their milk. USDA has increased the Class I (fluid) price by 24 cents per cwt. This should boost the New York-New Jersey blend price by about 14 cents. Increase will continue at least through April, 1969.

POULTRYMEN who cool eggs before packing for delivery may be wasting their time and labor, according to Professor O. F. Johndrew, Jr. of Cornell University. Johndrew says that cooling eggs before packing, a practice known as "pre-cooling," can be skipped entirely without harm to interior egg quality provided cased eggs are kept under proper storage conditions. Cooling after packing remains essential for maintaining interior quality.

WISCONSIN DAIRYMEN refer to high-moisture, ground ear corn as "cornage." Badger State's college specialists say it takes a 40-cow dairy to make the system practical the year 'round, and at least 28 cows to feed cornage in winter only. It's important to feed enough to remove 2 inches from the silo in winter and 4 inches in summer. Storage costs are relatively low, rats do not damage it, and it makes mechanized feeding easier.

WATCH FOR lice and mites on your birds. Malathion, Sevin, or Co-Ral are cleared for use in treating birds infested by these external parasites. Read and follow the directions and cautions on the label of the product to be used. Electric mist machines that "fog" birds with concentrate mixtures are available and are effective. In some cases, external parasites appear to develop resistance to any one material, so a rotation among the insecticides used may be desirable.

FIGURES carefully kept indicate that heifers can be culled with little error on the basis of production after 60 days of the first lactation. By dividing the heifers into four groups according to production and culling the lowest 25 percent you will save money.

"COCCIDIOSIS OF CHICKENS" is a new 42-page book with full-color illustrations of the life cycle of nine species of coccidia. Excellent reference for any poultryman. To obtain a copy, write NORAID, Box 191, Norwich, New York 13185.

FALL FERTILIZATION push is heavy from some commercial quarters, but several northeastern college agronomists have reservations. One problem is relative ineffectiveness of plowdown phosphorus for annual crops such as corn and small grains. Nitrogen losses in general appear too high during winter. Potash put on in fall may have possibilities, but heavily-populated Northeast is water-pollution conscious, and fears that winter and spring runoff and erosion from sloping land might carry both phosphorus and potash into streams and lakes in unacceptable volumes.

General conclusions: late fall and winter fertilizer application doesn't fit most northeastern farms.

MANY DAIRYMEN feel that a high-producing cow cannot eat enough grain while being milked to maintain production. Feeding extra grain to high producers poses some problems. One remedy is to divide the herd into two or more groups, and arrange to feed grain to the high group or groups outside the milking parlor.

THE PRODUCTS from one out of four American farms are exported, and the value of these exports is close to $7 billion. Agricultural imports totalled $2.7 billion. Any action, such as import quotas on any product, are likely to hurt farmers by reducing foreign demand.

ALFALFA that will be cut for hay the following year can safely be harvested in mid-October after the crop has stopped growth and root reserves have been built up. September or early October cutting increases danger of winterkill.

'69 FORD PICKUPS



'69 Ford pickups work like trucks, ride like cars ...give you better ideas all around!

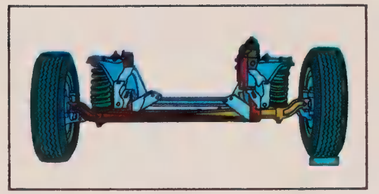
Ford gives you better ideas in ride. The first time you drive a Ford pickup, you'll be impressed by its carlike smoothness. You'll like the way Twin-I-Beam front suspension flattens out the bumps and keeps the front end steadier and more level—even on panic stops. Flex-O-Matic rear suspension *automatically* takes care of varying loads to give you a comfortable ride under all load and road conditions.

Ford's functional design makes work easier for you and contributes to longer truck life. From the axles up, durability is the key word. Sheetmetal is built to thrive on day-in, day-out punishment. Hoods with double-wall sections give extra rigidity. Styleside pickups have all-steel bodies with double-wall side panels and tailgate for enduring toughness. Flareside models feature wood floors plus running boards for easy side loading.

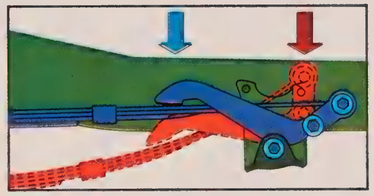
Ford offers better ideas in specialized models. New this year and exclusive with Ford are Contractor Special, Heavy Duty Special and Farm & Ranch Special models for F-100 and F-250 8-foot Styleside pickups. Camper Specials again are available for F-250 and F-350 Series.

Ford pickups are strong on power, too! Big 360- and 390-cubic-inch V-8's are popular choices for sizzling performance. Economical 240- and 300-cubic-inch Sixes provide sure power for everyday tasks. And all Ford engines are designed to operate efficiently on regular gas.

Ford light-duty trucks come in three basic series: F-100, F-250 and F-350 with maximum GVW ratings of 5000, 7500 and 10,000 lb. respectively. Standard, Custom and Ranger chassis-cab models and Flareside pickups are offered in all series. Styleside pickups are available for the F-100 and F-250 Series. Six-man-crew cabs, stake bodies and platforms may be ordered for the F-250 and F-350 Series. Ford 4-wheel-drive F-100's and F-250's come with pickup boxes or as chassis-cab models. You'll find an economical Ford pickup that has better ideas just right for your needs.



Twin-I-Beam Front Suspension softens up the ride—toughens up the truck. Ford's exclusive design uses two front axles cushioned by coil springs to allow wheels to roll over bumps independently. This famous suspension, thoroughly proved by over four years' usage in all types of jobs, absorbs the jolts and jars of the roughest roads and provides outstanding stability on the highway. Each front axle is a forged steel I-Beam that's held in place by a rugged I-Beam radius rod for positive alignment control.



Flex-O-Matic Rear Suspension automatically adjusts spring stiffness for varying load conditions. In no-load position (red arrow), Flex-O-Matic rear suspension provides a long, supple spring to cushion the ride when the pickup box is empty. When load is added, a compensating shackle pivots into action (blue arrow) to shorten the spring's effective length. Result: a shorter, stiffer spring as the load gets heavier. Ford Flex-O-Matic rear suspension is standard in the F-250's, optional in the F-100's.

F-250 with 6-man-crew cab and Styleside 6½-ft. Pickup

F-100 Ranger Styleside 8-ft. Pickup

F-100 Styleside 8-ft. Pickup

F-350 Flareside 9-ft. Pickup



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Spacious Ford interiors have more living room comfort and luxury

Open the door of any '69 Ford pickup: you'll find the roomiest interiors in the industry, and wide, deep-cushioned seats that hold three with ease. All interiors are color-coordinated with exterior paint and include swept-away instrument panel with padding, energy-absorbing sun visors, energy-absorbing arm rests with paddle-type door latch handles, seat belts, and interior door lock buttons. Other standard items include windshield washers, two-speed windshield wipers, rearview mirrors, backup lights, turn signals, and 4-way emergency flasher.

Standard cab . . . interior equipment, in addition to items mentioned at left, includes dome light, hi-dri all-weather ventilation, deluxe fresh air heater with 3-speed fan, ash tray, glove compartment, hardboard headlining, black floor mat, and vinyl seat trim in black, blue, red or parchment.



Ranger Interior



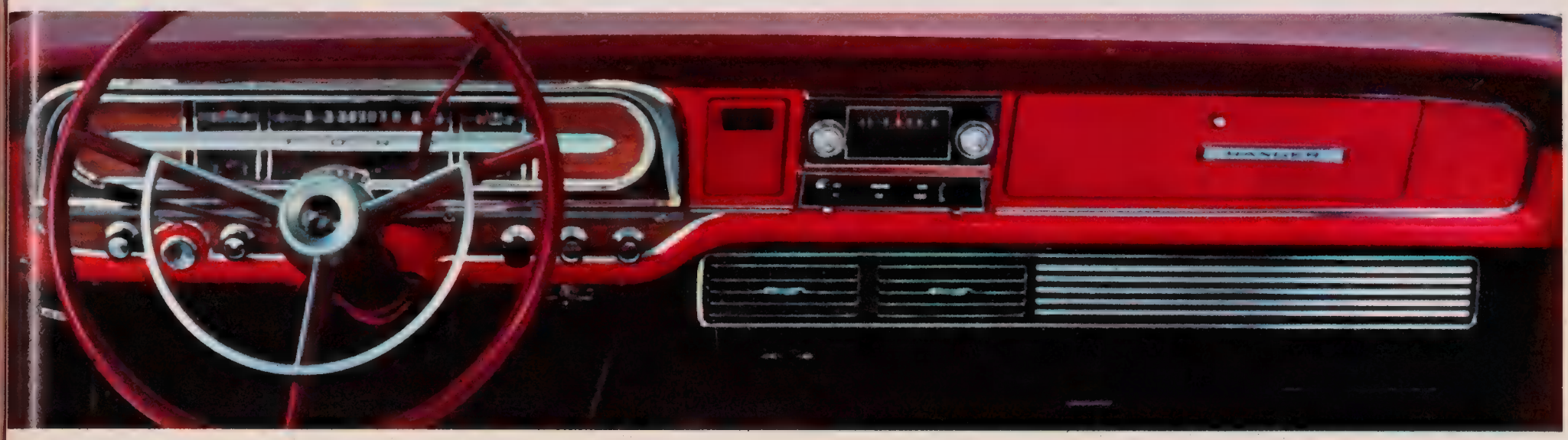
Custom Cab Interior



Standard Cab Interior

Custom cab . . . interiors offer, in addition to, or in place of the Standard cab items, deep-foam seat cushion and foam padding in seat back, woven plastic seat trim, color-coordinated floor mat, custom instrument cluster, horn ring, cigarette lighter, bright-metal headlining retainer and door coverplate moldings. Exterior items include bright-metal front bumper, grille, windshield molding and taillamp bezels.

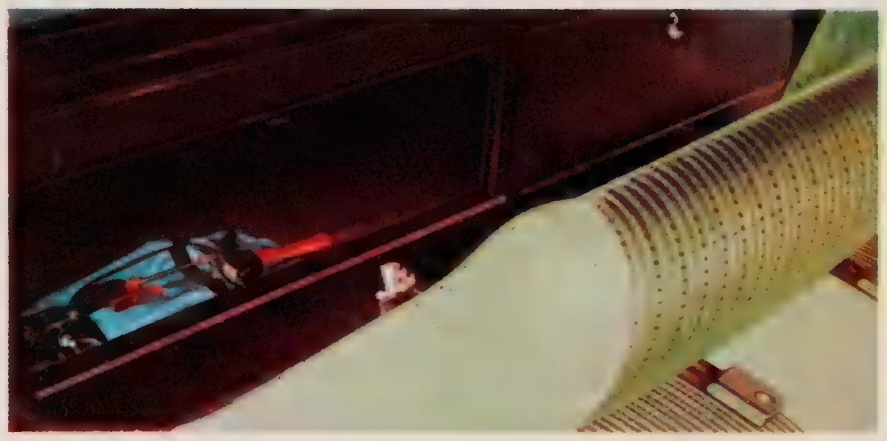
Ranger . . . now available on all chassis-cab models as well as the Styleside pickups, features high-styled interior and exterior appointments. Inside trim (in addition to, or in place of, Standard or Custom cab equipment) offers color-coordinated pleated vinyl upholstery with a clothlike pattern, woodgrain inserts in instrument cluster, bright-metal instrument panel molding, pleated vinyl door trim with simulated woodgrain insert and bright molding, door courtesy light switches and wall-to-wall carpeting. Outside, Ranger decor includes a distinctive grille, bright-metal hub caps, and bright-metal trim on rocker panels, front wheel opening lips, roof drip rails and around rear window. Additional items for Styleside pickup boxes include Ranger emblem, cargo area light plus bright-metal tailgate release handle, rocker panel extension, rear wheel opening lip and tailgate moldings.



Comfort and convenience options make Ford cab interiors more carlike than ever. The items described on this page provide a degree of versatility never before available. **SelectAire Conditioner** includes standard fresh air heater in an integral unit to give you year-round comfort in all types of climates. With windows closed, it can reduce the in-cab temperature from 120° to 78° in only twenty minutes at an outside temperature of 100°. **Push-Button Radio** has transistors for greater reliability in severe service. Transistorized manual radio also available. **SelectShift Cruise-O-Matic** gives you fully automatic or manual shifting. "Second Hold" feature permits better control on long grades. **Power Steering** for F-100 and F-250 takes the work out of parking, turning. **Power Brakes** greatly reduce stopping effort when loaded or unloaded. Power front disc brakes available on F-250 and F-350 Series have high fade resistance. **Ammeter and Oil Pressure Gauge,** positioned for best readability, indicate alternator charging rate and oil pressure at a glance.



Bucket seats with foam-padded cushion and back for Custom and Ranger cabs add sports car flair, individually cradled comfort. All-vinyl seat trim, fuel tank cover and carpeting are color-coordinated to exterior paint.



Lockable cab stowage compartment behind the seat provides a convenient weatherproof area for tools, cameras, hunting equipment and the like. Lower section may be divided or partition can be removed as shown to give a single 64-inch wide compartment. The 25-gal. frame-mounted fuel tank is required in place of standard tank when this option is ordered.



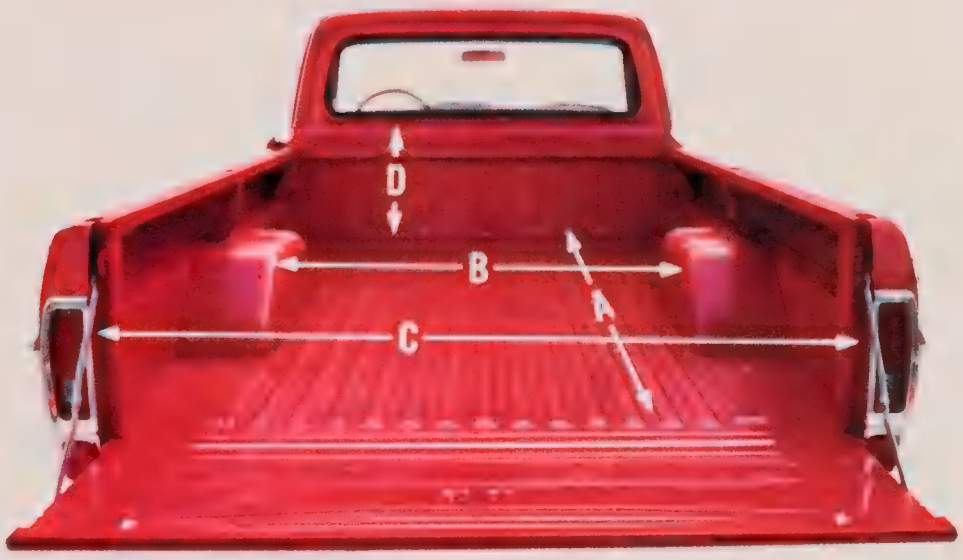
Remote-control outside mirror, available for driver's door, provides simple adjustment from inside cab. Chrome outside portion is the same size and shape as the standard pickup mirror for excellent rearward vision.

Other popular cab and interior options

- ☐ Tinted Windshield
- ☐ Tinted Glass All Around
- ☐ Cab Marker and Identification Lights
- ☐ Shoulder Harnesses
- ☐ Western-Type Mirrors
- ☐ Two-Tone Paint
- ☐ Dual Electric Horns
- ☐ HD Black Vinyl Seat Trim
- ☐ Full-Width Custom Cab Seat (std. cab)
- ☐ Bright-Metal Grille (std. cab)
- ☐ Styleside Body Moldings
- ☐ Convenience Group

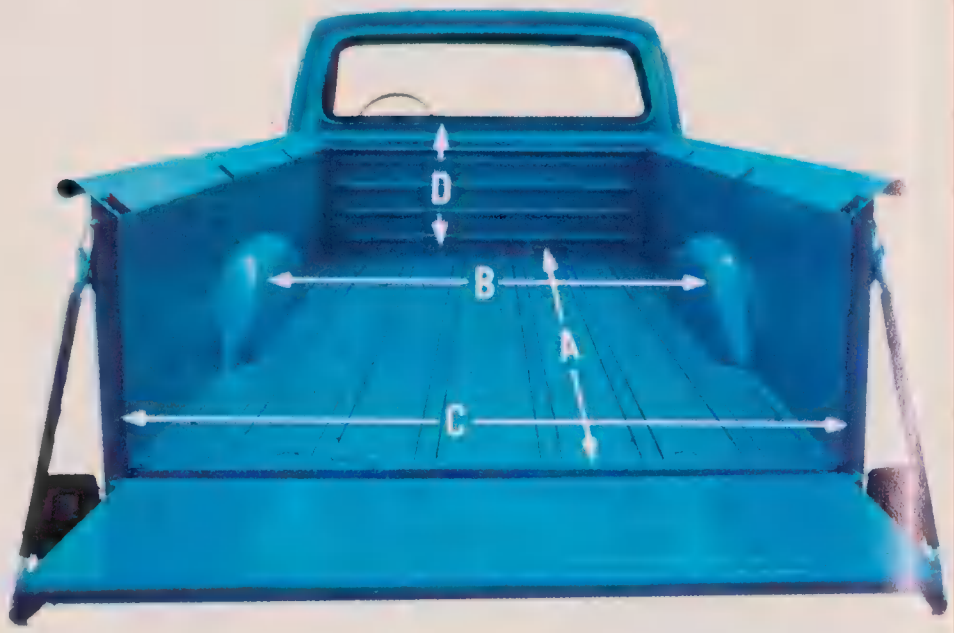
Choose the Ford body that best meets your cargo requirements

Styleside



Spacious Styleside pickups, available in 6½- and 8-ft. lengths, give you sleek styling with body side panels extended forward to hug the contour of rear cab corners. Cargo box features include double-wall side panels and tailgate, flattop wheelhousings, sturdy stake pockets and an all-steel floor. A single center latch mechanism opens tailgate quickly and easily, and only one hand does it! Steel support straps hold tailgate in open position. See table at right for availability.

Flareside



Flareside pickups come in 6½-, 8- and 9-ft. lengths. Body construction includes running boards between cab and rear fenders for easier over-the-side loading and seasoned hardwood floorboards with steel skid strips to help you slide cargo into place. Rubber-covered forged steel chains support the tailgate when open—toggle-type latches maintain tight seal when tailgate is closed. Heavy-gauge steel side panels with flared sides have rolled edges for extra strength and rigidity.



One-Hand Tailgate Latch



Double-Wall Hood Sections



One-Hand Hood Latch



Rolled-Edge Body Sides



Steel Tailgate Support Straps



Flattop Wheelhousings

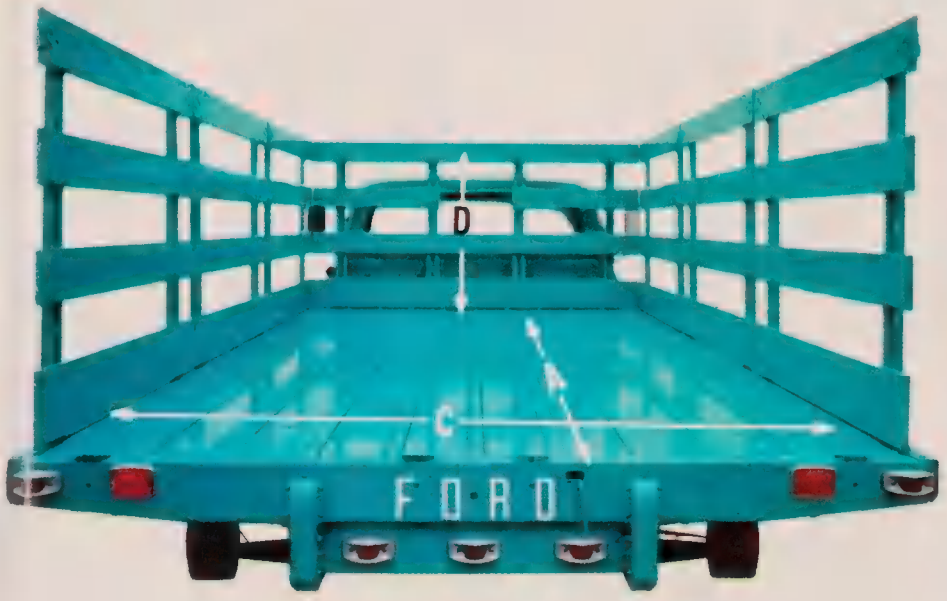


Rubber-Covered Support Chains



Convenient Running Board

Stake and Platform



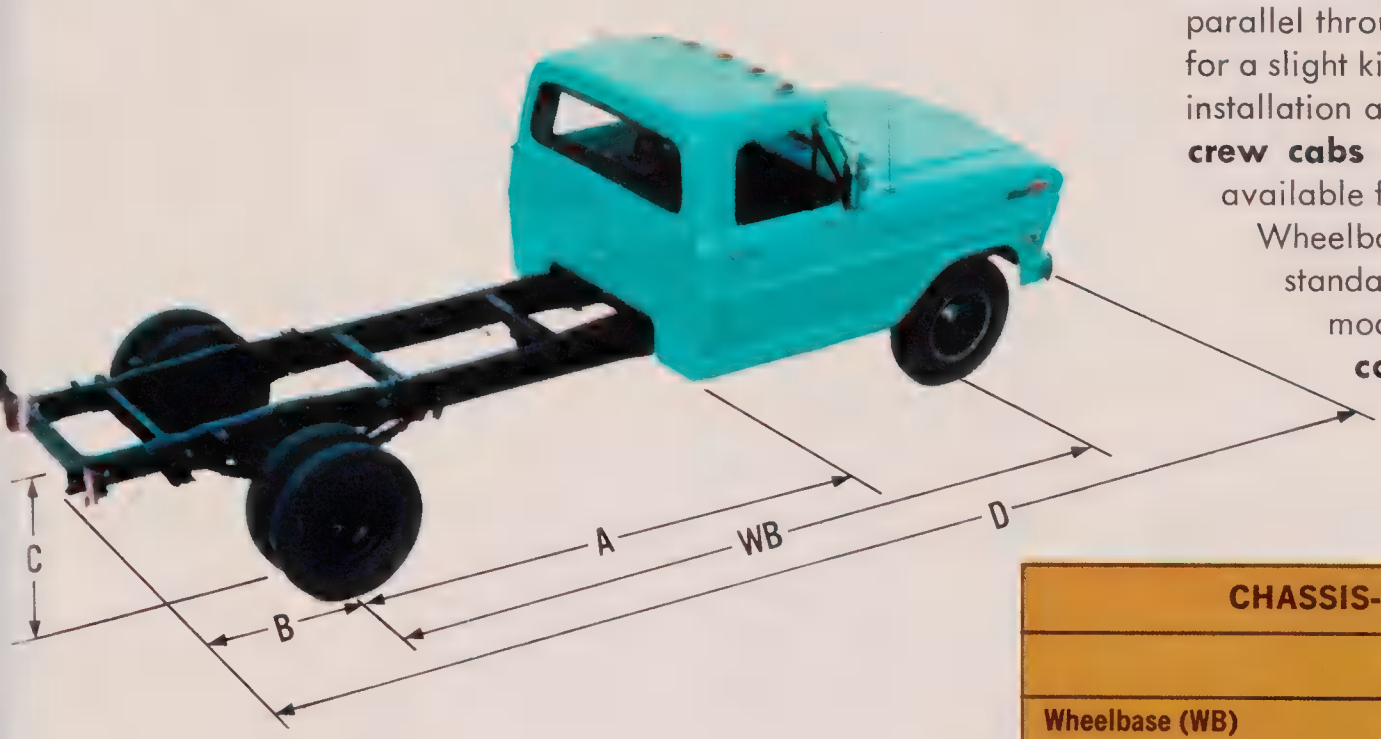
Ford Stakes and Platforms, in 7½-, 9- and 12-ft. lengths, are well suited to haul bulky or odd-shaped loads. Floor frames are made of steel cross sills riveted to steel siderails. Floorboards are interlocked with steel skid strips and corners are reinforced with steel brackets. Formed steel caps over the ends of the body sills act as bumpers for loading docks. Sideboards and stakes are straight-grained hardwood on 7½-ft. body. Stakes are reinforced steel on the longer bodies.

BODY AVAILABILITY AND CARGO AREA DIMENSIONS

SERIES	Wheelbase (in.)	Nominal Cargo Box Length (ft.)	Inside Length (in.) (A)	Width Between Wheelhousings (in.) (B)	Tailgate Opening (in.) (C)	Inside Depth (in.) (D)	Cargo Cap'y (cu. ft.)
STYLESIDE PICKUPS							
F-100	115	6½	78.19	49.0	65.0	19.30	60.3*
	131	8	98.19	49.0	65.0	19.30	76.4*
F-250	131	8	98.19	49.0	65.0	19.30	76.4*
FLARESIDE PICKUPS							
F-100	115	6½	77.9	49.0	49.0	20.3	45.0
	131	8	96.0	48.4	54.0	22.1	65.4*
F-250	131	8	96.0	48.4	54.0	22.1	65.4*
F-350	135	9	108.1	48.4	54.0	22.1	74.0*
STAKE OR PLATFORM							
F-250	131	7½	90.0† 93.4‡	—	73.7† 79.3‡	28.3	—
F-350	135	9	106.0† 109.4‡	—	82.1† 87.3‡	31.2	—
	159	12	142.0† 145.4‡	—	82.1† 87.3‡	42.0	

*Allowance made for wheelhousings †Stake ‡Platform

Chassis-Cab



Ford's conventional Chassis-Cab models can accommodate almost any type of body. Frame rails are straight and parallel throughout their length behind cab, except for a slight kickup at the rear axle, to simplify body installation and keep loading heights low. **6-man-crew cabs** with standard or dress-up items are available for F-250, F-250 (4x4) and F-350 Series. Wheelbases are extended to accommodate the standard 6½-ft. Styleside body on F-250 models, 8-ft. body on F-350's. **Chassis-cowl or chassis-windshield models** for single-unit bodies may be ordered for F-350 Series.

CHASSIS-CAB DIMENSIONS (in.)

	F-100		F-250	F-350	
Wheelbase (WB)	115	131	131	135	159
Back of cab to rear axle (A)	40	56	56	60	84
Rear axle to end of frame (B)	36.8	40.6	40.6	38.5	47.5
Frame to ground ht.—empty (C)	26.0	25.9	27.4	27.3	26.9
Overall length (D)	182.5	202.3	202.3	204.2	237.2

Ford Camper Specials are the leaders for carefree camping

Ford, America's recreation vehicle leader, has designed Camper Specials for the F-250 and 350 Series to provide more worry-free, economical transportation for the popular camping rigs. Ford Camper Specials, engineered to give you packages of the major components needed to haul a camper body, reduce the possibility of your overlooking a necessary item.

F-250 Camper Special

Here's the Ford designed to carry popular 10½-foot pickup-mounted campers. F-250 Ranger, Styleside and Flareside pickups and Chassis-Cab Camper Specials offer the necessary heavy-duty components to haul second homes with ease. Ford's exclusive Flex-O-Matic leaf-spring rear suspension is standard on every F-250 Camper Special. This better Ford idea combines with famous Twin-I-Beam front suspension to let the vehicle ride smoothly, even when the camper body is removed! Flex-O-Matic adjusts from heavy camper loads to no-load conditions, automatically.

F-350 Camper Special

The big F-350 Camper Special is available with Standard, Custom or Ranger chassis-cab models in two wheelbase lengths . . . the 135-inch can carry up to 12-foot chassis-mounted cab-over campers. The 159-inch wheelbase model with dual rear wheels has a GVW of 10,000 lb for bodies up to 14 feet long.

Camper Special Options

To simplify the installation of bodies with walk-through cab-to-camper passages, Ford offers an optional out-of-the-way 25-gallon frame-mounted gas tank and bucket seats. Other pleasure-oriented options available on all Ford Camper Specials include SelectShift Cruise-O-Matic transmission, power front disc brakes, power steering (F-250 only), Custom cab, Ranger, integral SelectAire conditioner/heater unit and push-button or manual transistorized radio.



Distinctive Camper Special Insignia


Western Mirror


Heavy-duty cooling units provide optimum reliability. Optional 110/120-volt, 2500-watt Electric Power Pak is a self-contained unit.

F-250/350 CAMPER SPECIAL PACKAGE (Pickups & Chassis-Cabs)

Camper Special Package Includes:

- 70 ampere-hour battery
- Oil pressure gauge
- Ammeter
- Extra cooling radiator
- Dual bright-metal 6″ x 10″ Western-type mirrors
- Extended tailpipe
- Front side marker lights
- Camper wiring harness*
- Rear shock absorbers for F-350
- "Camper Special" emblem

*Includes 12-volt 7-wire (identified) sealed cable without connectors for camper body interior and exterior lighting.

Minimum Optional Equipment Required:

The following chart shows the minimum equipment required for use with the Camper Special Package. The equipment shown does not necessarily represent the maximum equipment obtainable and in many cases additional optional equipment is available for maximum Camper loads and applications.

	F-250 (131′ wb.)	F-350 (SR) 135′ OR 159′wb.	F-350 (DR)* 135′ OR 159′ wb.
Engine	300 Six or V-8	V-8	V-8
Transmission	4-Spd. or Cruise-O-Matic	—	—
Alternator	55 Ampere	55 Ampere	55 Ampere
Springs (lb.) Front	1175 w/Six; 1250 w/V-8	—	—
Rear	1950†	2400	3200
Tires—Front	8.00 x 16.5 8PR*	8.75 x 16.5 10PR	8.00 x 16.5 8PR
Rear & Spare	8.00 x 16.5 10PR*	8.75 x 16.5 10PR	8.00 x 16.5 8PR
	or	or	or
Front	7.50 x 16 6PR‡	7.50 x 16 6PR	7.50 x 16 6PR
Rear & Spare	7.50 x 16 8PR‡	7.50 x 16 10PR	7.50 x 16 6PR
Max. Camper Length	10½ ft.	11 ft. w/135″ wb. 12 ft. w/159″ wb.	12 ft. w/135″ wb. 14 ft. w/159″ wb.

*For maximum GVW 8.75 x 16.5 10PR or 9.50 x 16.5 8PR front, rear and spare. Includes 12″ x 2½″ brakes.
†2450-lb. rear springs required for 7500-lb. GVW or trailer towing.
‡For maximum GVW 7.50 x 16 10PR front, rear and spare or rear and spare only. Includes 12″ x 2½″ brakes.
^For maximum GVW 8.00 x 16.5 10PR or 7.50 x 16 6PR rear and spare tires and 550-lb. auxiliary rear springs.
(SR) = Single rear wheels.
(DR) = Dual rear wheels.


F-100 Styleside with Shell Camper

F-350 Camper Special with Chassis-Mounted Camper



F-250 Camper Special with 10½-ft. Goldline Camper



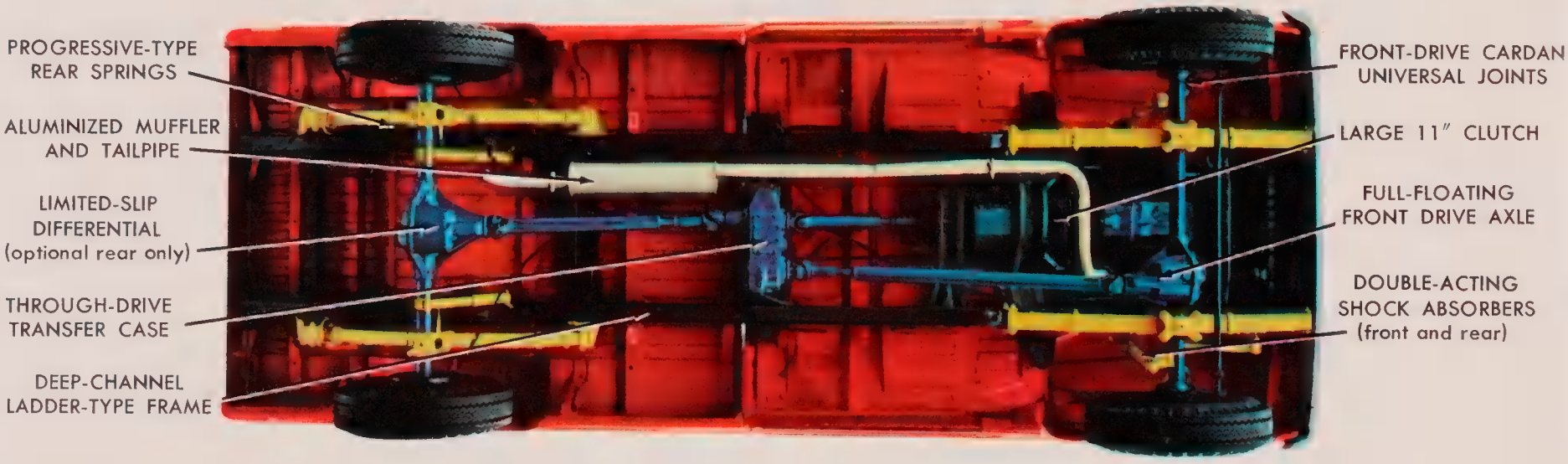
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Ford's 4-wheel-drive go-anywhere models

Ford 4 x 4 trucks are designed and built to tackle unusual jobs or rugged country with equal ease. Double Cardan universal joints at front wheels provide an even flow of power in all turning positions. Optional free-running front hubs eliminate front axle gear drag when operating in two-wheel drive. Shifting from two- to four-wheel direct drive is accomplished without stopping or using the clutch.

F-100 4 x 4's have Ford's exclusive Mono-Beam front suspension with coil springs and forged radius rods for a ride that is smoother, more stable than any competitive 4-wheel-drive unit. Single-speed transfer case coupled to a 4-speed transmission sends equal power to each axle.

F-250 4 x 4 front suspension consists of resilient, long leaf springs with lubrication-free shackles. Standard two-speed transfer case and 3-speed transmission provide proper gearing for either highway or off-road operation. A 4-speed transmission is optional.

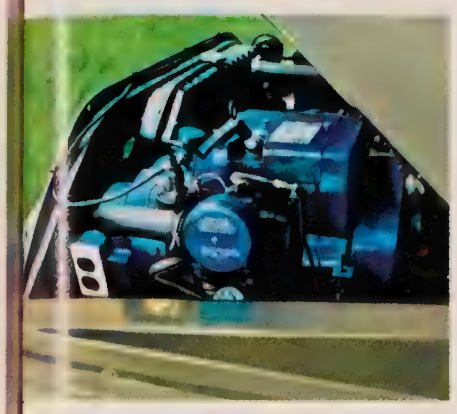


Specifications

EQUIPMENT	F-100	F-250	F-350	F-100 (4 x 4)	F-250 (4 x 4)
Maximum GVW	5000 lb.	7500 lb.	10,000 lb.*	5600 lb.	7700 lb.
Axle, Front: Type	Twin-I-Beam	Twin-I-Beam	Twin-I-Beam	Full-floating, Drive	Full-floating, Drive
Capacity	2750 lb.	3000 lb	3800 lb.	3000 lb.	3000 lb.
Optional Capacity	—	—	—	—	3500 lb.
Axle, Rear: Capacity	3300 lb.	5200 lb.	7400 lb.	3300 lb.	5200 lb.
Ratios (to 1)	3.70, 3.25, 3.50, 4.11	4.10, 3.54, 3.73, 4.56	4.56, 3.73, 4.10, 4.88	3.70, 3.50, 4.11	4.10
Optional Limited-Slip Diff. Capacity	3300 or 3600 lb.	5200 lb.	7400 lb.	3600 lb.	5200 lb.
Ratios (to 1)	3.25, 3.50, 3.70, 4.11 3600—3.54, 4.10	3.54, 3.73, 4.10, 4.56	3.73, 4.10, 4.56	4.10, 3.54	4.10
Brakes, Service: (Self-adjusting) Front	11 1/32″ x 3″	12 1/8″ x 2″	12″ x 3″	11″ x 2″	12 1/8″ x 2″
Rear	11 1/32″ x 2 1/4″	12 1/8″ x 2″	12″ x 3″	11 1/32″ x 2 1/4″	12″ x 2 1/2″
Optional Vacuum Booster	9″ dia.	9″ dia.	9″ dia.	—	—
Optional Brake Size	—	12″ x 2 1/2″†	Front Disc	—	—
Clutch: Dia. (in.)—Area (sq. in.)	HD11—123.7§	HD11—123.7§	HD11—123.7§	HD11—123.7	HD11—123.7
Electrical: 12-Volt Battery	54 plates—45 amp-hr	54 plates—45 amp-hr	54 plates—45 amp-hr	54 plates—45 amp-hr	54 plates—45 amp-hr
Optional Battery	66 plates—70 amp-hr	66 plates—70 amp-hr	66 plates—70 amp-hr	66 plates—70 amp-hr	66 plates—70 amp-hr
Std. Alternator	38 amp., 570 watt	38 amp., 570 watt	42 amp., 630 watt	38 amp., 570 watt	38 amp., 570 watt
Opt. Alternator	55 or 65 amp.	55 or 65 amp.	55 or 65 amp.	55 or 65 amp.	55 or 65 amp.
Engine: Displacement	240 Six	240 Six	240 Six	240 Six	240 Six
Optional	300 Six, 360 V-8, 390 V-8	300 Six, 360 V-8, 390 V-8	300 Six, 360 V-8, 390 V-8	300 Six, 360 V-8	300 Six, 360 V-8
Frame: Section Modulus (Short wb.)	2.98	3.89	5.58	3.71	5.58
(Long wb.)	3.06	—	7.84	4.14	—
Shock Absorbers: (Double-acting)	Front & Rear	Front & Rear	Front	Front & Rear	Front & Rear
Optional	HD Front & Rear	HD Front & Rear	Rear, HD Front	HD Front & Rear	HD Front & Rear
Springs, Front: Cap'y. (lb.) (w/Sixes—w/V-8's)	1055—1175	1055—1175	1365—1430	1125—1250	1200—1200
Optional	1175—1265	1175—1250	—	—	—
Springs, Rear: Capacity @ Pad (lb.)	950	1650 Flex-O-Matic	1700	1250	1700
Optional Main	1250, 1650 Flex-O-Matic	1950, 2450 Flex-O-Matic	2400, 3200	1650	2400
Optional Auxiliary	420, 365	420	550, 900	—	550
Steering: Type	Recirculating Ball	Recirculating Ball	Recirculating Ball	Worm & Roller	Worm & Roller
Optional	Integral Power	Integral Power	—	—	—
Transfer Case: Type	—	—	—	1-Speed	2-Speed
Transmission: Type	3-Speed fully Synchronized	3-Speed fully Synchronized	4-Speed	4-Speed	3-Speed
Optional	4-Speed‡ & Cruise-O-Matic	4-Speed & Cruise-O-Matic	Cruise-O-Matic	—	4-Speed
Wheels: Type—Rim size	5-hole—5.5K	8-hole—6.0	8-hole—6.0	5-hole—5.5K	8-hole—6.0
Tires: Tubeless	8.15 x 15 B(4PR) PT	8.00 x 16.5 8PR	8.00 x 16.5 8PR	8.15 x 15 B(4PR)PT	8.00 x 16.5 8PR
Optional	Both tubeless and tube-type in sizes to match GVW requirements				

PT=passenger type—all others are truck-type tires. Use adequate tires for loads and type of service. Consult your Ford Dealer! *8000 lb. w/single rear tires †Front disc brakes also available §11½″ dia. clutch incl. w/390 V-8 ‡3-speed w/Overdrive available F-100

Popular Custom-Tailoring Options



Electric Power Pak, a unique under-hood 2500-watt generator, provides regular household power (110/120 volts) on-the-job for electric tools and camping equipment. Unit is self-contained and driven by a one-cylinder, 5 hp, air-cooled engine.



Frame-mounted fuel tank of 25-gallon capacity is available with or without the standard 19.5-gallon in-cab fuel tank. Installation on the inside of the left frame rail includes a stone shield for added protection against off-road hazards.



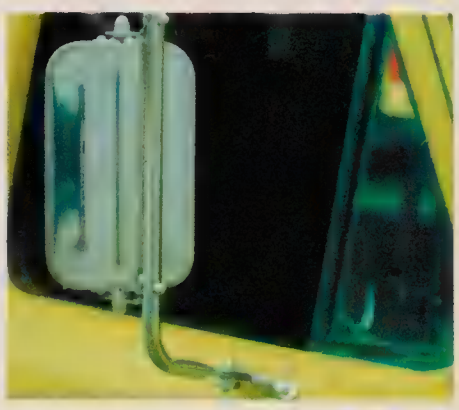
Convenience group for Standard or Custom cab includes cargo area light, courtesy light door switches, inside day/night mirror and an engine compartment light. Engine light and day/night mirror are a combination option for the Ranger.



Tool stowage box for 8-ft. Styleside is installed in pickup box skirt. This exclusive Ford option features a flush-mounted door with lock for safe, easy-to-reach storage. Contractor boxes on top of Styleside body sides also are available.



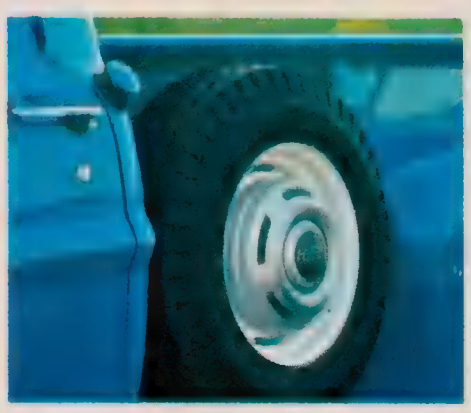
Bright body side moldings for Styleside pickups extend full length of front fender, cab and body side.



Western-type mirrors are available for either side of cab with fixed or swing-lock supports.



Styleside spare tire carrier inside cargo box, ahead of either wheelhousing, provides convenient storage.



Flareside spare tire carrier places tire ahead of left rear fender where it can be easily stowed or removed.



Bright-finish grille for standard cab models adds to appearance, stays new-looking longer.



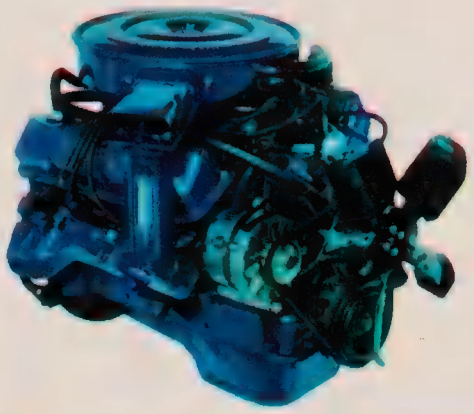
Rear step bumper for Stylesides is reinforced with center plate for mounting a trailer hitch ball.

Other chassis options:

- ☐ Bright hub caps for models with single rear wheels
- ☐ Bright or "Mag" wheel covers for 15-in. wheels
- ☐ Extra cooling equipment
- ☐ Chrome contour front bumpers
- ☐ Chrome or painted contour rear bumpers for Stylesides
- ☐ Painted channel rear bumper for Flaresides
- ☐ Brush-type grille guard
- ☐ Free-running front hubs for 4 x 4's
- ☐ Oil-bath engine air cleaner
- ☐ Velocity-type engine governor
- ☐ Vacuum brake booster
- ☐ Power disc front brakes (F-250 and 350)
- ☐ Power steering (F-100 and 250)

Ford's total performance engines

Performance leaders for '69 are the big 360- and 390-cubic-inch Ford V-8's. These proven workhorses provide sure pulling power . . . spirited response when you want it. Also offered for outstanding economy is the big 300-cubic-inch Six. Specifications for these engines as well as the 240-cubic-inch standard Six are listed below. All Ford engines have a thermostatically controlled hot and cold air intake system and a closed crankcase ventilation system standard. An exhaust emission control system is standard on all F-100's.



ENGINE SPECIFICATIONS	240 SIX	300 SIX	360 V-8	390 V-8
Max. Gross hp @ rpm	150 @ 4000	165 @ 3600	215 @ 4400	255 @ 4400
Max. Gross Torque (lbs-ft @ rpm)	234 @ 2200	294 @ 2000	327 @ 2600	376 @ 2600
Bore and Stroke (in.)	4.0 x 3.18	4.0 x 3.98	4.05 x 3.50	4.05 x 3.78
Compression Ratio (to 1)	9.2	8.8	8.4	8.6

Ford exclusive... Farm & Ranch special to fit your needs!



Now you can choose a complete, factory-engineered farm pickup that's job-right and job-ready! Ford's new Farm & Ranch Special is offered for the F-100 and F-250 Stylesides with a choice of standard cab, Custom Cab or top-of-the-line Ranger luxury. Models in both series include the basic components for optimum reliability and are specially priced to save you money. Additional items of special equipment or accessories are, of course, available.

YOU GET ALL THESE EXTRAS STANDARD:

- HD Twin-I-Beam front suspension
- HD Flex-O-Matic rear suspension
- Front and 9-inch-high side cargo boards painted body color
- Rear step bumper with provision for trailer hitch
- Chrome Western swing-lock mirrors on each side of cab
- Heavy-duty 70 amp-hr battery
- Heavy-duty 55-amp. alternator
- Bright-metal body side moldings
- "Farm & Ranch Special" insignia on cowl



Bronco is a special 4-wheel-drive workhorse. Wide-track axles and steering linkage shock absorber give road-hugging stability, sharp 33.6′ turning circle.

Ranchero has roomy 6½ ft. pickup box with double-wall sides and tailgate for extra strength. Broad power choice includes engines up to 428 cubic inches.



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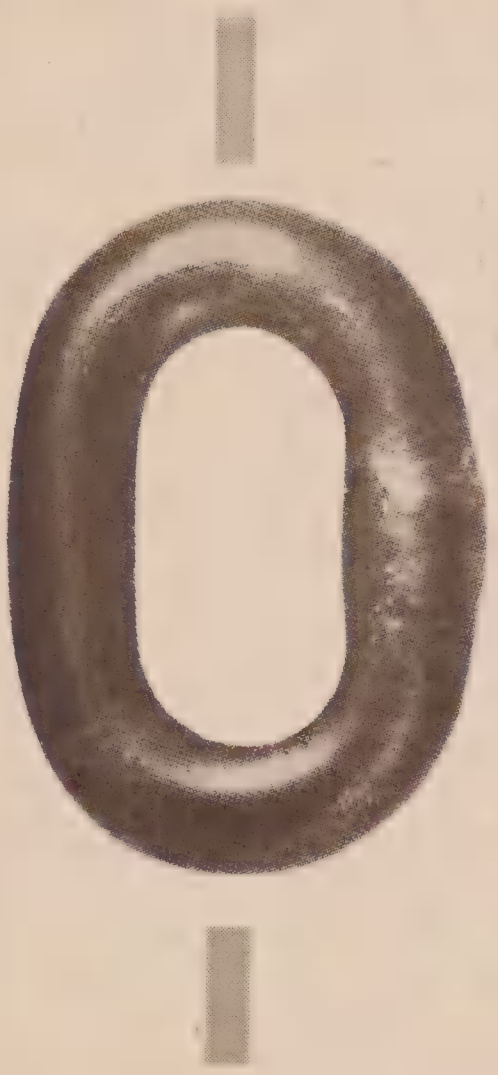
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TROUBLED

I was deeply troubled by the "68th Psalm" published on a recent editorial page. It applies a few totally-inadequate generalities to the most profound and complex problem our nation faces. Dealing with such a problem in this way brings no understanding, and leads toward no solutions.

It confuses issues, I think, to deal with student revolt and the city riots as though they were but parts of a whole; they are, only to a slight degree. As to the students . . . I participated in the 200th anniversary of Rutgers University. There were almost two thousand people there, with distinguished educators from all over the world. The Vice President spoke. As he began, about two dozen pretentious show-offs got up and marched out, and then picketed the event. What reports did the papers carry the next day? . . . large headlines and pictures of the pickets . . . hardly a word about the thousands of the rest of us.

A few years back, a very minor Rutgers assistant professor said that he hoped North Vietnam would win. Who cared what he thought? The Republican candidate for Governor chose to make a campaign issue of it, and a little smart aleck – long since gone and forgotten – became a front-page hero, for months. The rebellious kids live on such publicity, and we play their game, all the way up to the Columbia melee.

The problems of the cities are, of course, far more profound and tragic. I was not directly involved in the Newark riots, but close to the situation in a number of ways. The plight of the Negro in the city ghetto is really desperate. We say they could do much to improve it. I suppose they could, but to imply that all are lazy and shiftless, and vandals and arsonists, is wholly untrue. The vast majority desperately want a job and want to become first-class, fully-responsible citizens.

The simple fact of the matter is that this problem was made in the South, and now the northern cities are trying to deal with it. Ninety percent of the adult Negroes in Newark were not born there. Forty-five percent were not there ten years ago. Where they came from, they were denied an

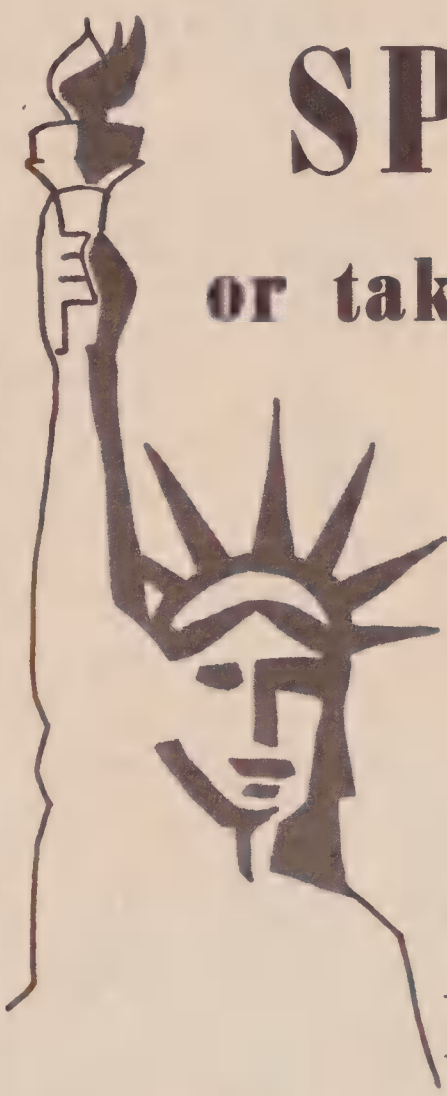
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"Oh dear! The mice have been in our vitamin pills again!"

1, 2, 3 Come for a SPREE ...

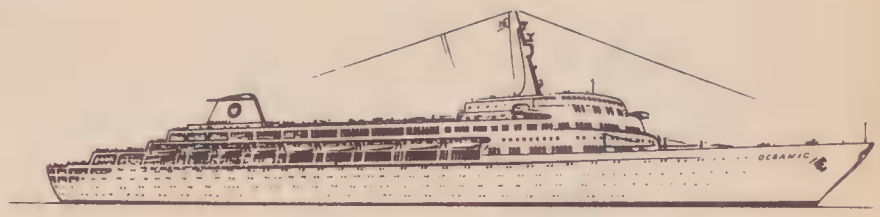
or take ALL THREE



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An old-fashioned "Remember When" New Year's Eve watching the old year out in Times Square is at the heart of our December 28 - January 1 New York Fun Spree. Complete Fun Spree includes four nights at the luxurious Biltmore, meals through brunch on New Year's Day, three sightseeing tours, and a Broadway show. Almost everything's included in one low, low price - tips, escort services - but bring your own nostalgia.

2. Caribbean Fun Spree



Make your comfortable home on the super deluxe S. S. Oceanic January 3 - 16 while you fun spree your way to sightsee and shop St. Thomas, Martinique, Barbados, Grenada, Curacao. As usual, one low price includes most everything.

3. More New York Fun Spree

Combine the first two packages of fun and relaxation and what do you do from New Year's Day till the Oceanic leaves on January 3? Easy - just stay with the group for another full day of varied sightseeing, a show at the famous Radio City Music Hall, and more fun and relaxation.

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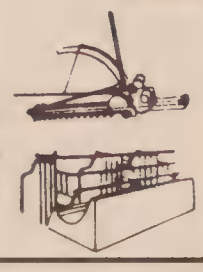
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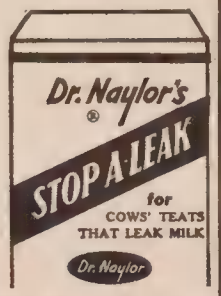
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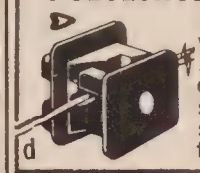
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AT HARDWARE & AUTO STORES

Troubled

(Continued from page 21)

education; they learned no skills except as virtual slave labor on farms; they were treated with contempt.

Not over twenty-five years ago, I walked along the streets of a southern city, and the Negro men got off the sidewalk and stood in the gutter, to let me pass. Now, I, a white man, expect them to have self-respect and pride and dignity, and to think well of me, when I taught them, for years, to hate me.

If anyone is really interested in the problem, may I urge them to read the report of New Jersey's committee which studied the Newark riots. It was headed by the President of the New Jersey Bell Telephone, and included such men as the two past Governors, one Republican, one Democrat, the president of the State Bar Association, and the Bishop who heads New Jersey's largest Catholic university. It is a deeply-disturbing document, and it makes me, as an American citizen, ashamed.

But we, as a nation, can and will solve this problem, as we have others. Violence and riots must be halted . . . for the sake of the Negroes as well as the whites. Glib clichés don't help. We are a Christian nation, and perverting the Bible does us no credit. — *Lloyd B. Wescott, Rosemont, New Jersey*

GUN CONTROL

It seems to me the President and some Congressmen from our State are going about controlling guns in exactly the wrong way.

In New York State, we have had for years a very strict law intended to control the ownership of hand guns. We all know this Sullivan Law does not control the use of hand guns by men who are committing hold-ups, and robberies. It seems the criminal can always get a gun!

I believe a national (or state) law to control ownership of rifles and shotguns will work the same way as the Sullivan Law. Instead of licensing and registering rifles and shotguns, why not have a law to punish severely anyone who uses a gun of any sort in committing a crime?

This could be done by adding a penalty of a **mandatory** 10-year jail sentence . . . no probation allowed . . . to anyone convicted of a felony while carrying, or using, a gun. If the law were specific so no judge could impose a softer sentence, I am sure the criminal element of our society would be better controlled than they are at present.

I am not a member of the National Rifle Association. It just seems sensible to punish the ones who **deserve** to be punished, and not involve the government in a very expensive program of gun license and registration if a better result can be gained by simpler means. What do your readers think? — *Mrs. M. A. Blakeley, East Aurora, New York.*

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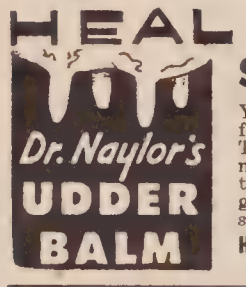
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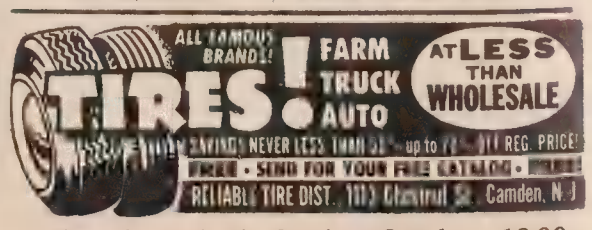


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YOUTHPOWER

The week of October 7 this year has been officially designated by Governor Rockefeller as Youthpower Week in New York State.

It's a noncommercial educational program sponsored by Empire State food industries, and has as its objectives:

1. To emphasize the broad importance of food and the food industry to our national welfare.

2. To develop a program of competitive youth participation in projects that further the knowledge of foods and the numerous industries associated with foods.

3. To create awareness of the career opportunities in food-related enterprises.

Anyone between the ages of 15 and 19 is eligible to participate. Choose a project, and develop a story relating to career opportunities involving food. The project may be presented orally, or in written form. Selection committees will choose two boys and two girls from each participating county to go to the State Youthpower Conference in Syracuse on February 21-22, 1969.

State winners . . . one boy and one girl . . . will receive an expenses-paid trip to the Youthpower Congress at Chicago, Illinois, as well as a scholarship award presented by the P&C Food Markets and the American Agriculturist Foundation.

For more information, write New York State Youthpower Food Conference, Route 9W, Glenmont, New York 12077.

The American Agriculturist Foundation has contributed to the Youthpower program in support of its activities in 1969.

BIG A AWARD

The Big A Award for a meritorious contribution to Farm City understanding will again be a major part of the program of the New York State Farm City Council.

This year the program has been broadened to include individuals, single organizations, and local clubs and groups; and simple statements of the services rendered will suffice for Council judging. Previously only communities were eligible for the award.

Nomination for the Big A Award, consisting of a handsome engraved plaque and other suitable recognition, should be sent to the 1968 chairman of the New York State Farm City Council, Robert Eastman, at P.O. Box 368, Ithaca, New York 14850.



RESTORE LEADERSHIP TO OUR COUNTRY

"In the world, as at home, we need New Leadership to restore communications among people and to work for peace and a unity of free nations based on mutual trust — common effort in the achievement of common goals.

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Governor Nelson A. Rockefeller
September 10, 1968

CONTINUE LEADERSHIP IN NEW YORK STATE

Republican leadership has resulted in:

——— Enactment of laws to provide tax exemptions for new farm buildings
——— Enactment of laws for consideration of agricultural interest in development of new transportation programs
——— Establishment of an Agricultural Resources Commission
——— Greater protection through more realistic bonding of milk dealers to insure dealer payments to milk producers
——— Greater protection against violators of agricultural laws and regulations
——— Substantial increase of appropriations for research and extension work
——— Increased financial assistance through state-aid to localities for schools, town and county roads, health and social services, community colleges

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THE UNTAXABLES

EFFECTIVE on January 1, 1969, is an amendment to the New York State real property tax law that provides limited exemption from taxation of "certain buildings and structures essential to the operation of agricultural and horticultural lands." It was a direct result of recommendations made to Governor Rockefeller by the New York State Commission on Preservation of Agricultural Land . . . and was introduced in the Assembly by Assemblyman Frank Walkley of Castile, a Commission member.

The amendment applies to structures "constructed or reconstructed subsequent to January 1, 1969 and prior to January 1, 1979." Any increase in value of real property that would have occurred because of constructing a qualifying new building, or remodeling an old one, is to be exempted from taxation for a period of five years.

Qualification

The exemption applies only to structures necessary to the operation of land which has been actively devoted to agricultural and horticultural production for a period of not less than two consecutive years prior to the date of application . . . and not less than five acres in area. The exemption does apply to buildings housing regular and essential farm employees and their immediate families, but in no case does it apply to the residence of the applicant for exemption.

Must Apply

Farm owners must apply for the exemption on a form to be filed with assessors on or before the applicable taxable status date. Assessors will enter the exemption on their rolls in a similar fashion as exemptions granted veterans and the elderly.

If land or buildings are converted to nonagricultural use during the period of exemption, the structures upon which the exemption was granted shall be subject to roll-back taxes for the period during which the exemption was operative.

In making the original proposal, the Commission recognized that farmers **must** make substantial investments in their businesses if they are to remain competitive. All across the Northeast . . . and across the nation . . . fewer farmers are producing more food on fewer acres, and this intensification is being largely brought about by the investment of capital to replace labor. The Commission wanted to encourage commercial farmers in New York to make that investment . . . to keep in production the land that can respond to new technology.

Some farmers have hesitated to make the new capital expenditures that were necessary to keep their units modern and economic operations. The tax exemption on capital improvements should provide some incentive to farmers for making these expenditures, and to remain in farming. In this process, nonfarmers are also benefitted . . . by the continued development of a more efficient food-production industry, and by the preservation of open space in a rapidly-urbanizing region.

New York State farmers who build qualifying structures after January 1, 1969, can contact their assessors for details of applying for the five-year exemption.

FARMER BARGAINING

by John Follman*

PRESSURE for compulsory legislation to negotiate contract terms between the grower and company has been mounting. Proponents of this approach say that labor went through centuries of violent unrest before achieving representation under the rules of the Wagner Act. Even though the Taft-Hartley Act modified the Wagner Act, it is argued that mandatory bargaining helped bring about a balance of power.

Voluntary associations of growers can presumably accomplish the same thing without the heavy hand of government to manipulate the outcome. So far as vegetable crops are concerned, this is true. By thorough economic analysis, strong grower participation, and establishment of reasonable alternatives, enough economic power can be gained to insure the grower a fair say.

When it comes to the negotiation of perennial crops, bargaining becomes more difficult. Cherries, apples and grapes are going to be produced every year. To some extent they will be there in varying degrees. What's worse, sometimes a moderate surplus creates havoc, and our antiquated marketing system refuses to accept anything but price to control the growers' enthusiasm for production.

In spite of this, growers prefer the voluntary association, and the operations committees of the New York Farm Bureau Marketing Cooperative are working to establish a workable program. Their efforts have four phases:

Grower Information – Growers are contacted to gather information about costs, crop estimates, conditions, and procedures.

Processor-Grower Committees – Committees are appointed on either a company or area-wide basis to provide a liaison between the processor and the grower. A few growers may say, "I'm big enough to do this on my own" . . . some canners say, "We already enjoy good grower relations with our producers" . . . both parties should be reminded that the association of growers to help establish a market price based on the analysis of the market can be done only under the legal provisions of the Capper-Volstead Act.

Communication Committees – Grower committees can organize effectively for rapid communication of price and procedures to one another. Without communication, misunderstanding and a breakdown in effectiveness will result.

Price-Influencing Activities – The most controversial phase of any voluntary program is the compromising of what appear to be uncompromising principles! Everybody can't be right. In the heat of emotion, each person develops his own standards of reason, and what appears to be perfectly logical to one is completely unreasonable to another.

The grower association wants most of all to be reasonable. Committees will go to all ends to make certain their judgments are not only rational but conservative. Every good businessman wants to develop the image of being responsible.

By the same token, when buyers meet this logic and reason with a calloused disregard for the growers' thought and effort, methods of resistance must be developed. At this point growers and their committees feel justified in using reasonable organized resistance to price offers to receive recognition for their point of view.

The success of growers in developing their own organizations and the procedures to be followed will largely determine the need for compulsory legislation.

*Coordinator, New York Farm Bureau Marketing Cooperative



Richard Ellis and the ambulance now serving "Instant Aid" territory.

INSTANT AID

The people of many a rural community have seen cooperative effort solve local problems. An example is "Instant Aid" in southern Cayuga County, New York, where the hard work of concerned folks has resulted in a volunteer ambulance service for an area where it previously took an hour or more for city ambulances to arrive.

New York State legislators some years ago tightened up the requirements for personnel serving on ambulances for which a charge was levied . . . to the point where many rural areas lost such service entirely.

Richard Ellis of Poplar Ridge, and Russell Brown of Scipio Center, were leaders in getting the project underway . . . but it's involved many others. Not all has been peaches and cream, for there has been bitter opposition from some people . . . as there always is, regardless of the merits of what is being undertaken.

A vehicle has recently been purchased, and 30 area people are qualified to serve as attendants. Russ Brown comments that the motto of "Instant Aid" is the well-known biblical passage, "Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto Me."

A good motto for some folks concerned about shielding the flickering flame of life in a pain-wracked body!

RECREATION PLANS

If you own a little piece of land on a lake or stream or have a mountain retreat, you might like to build your own "hideaway" on the property.

Plans for a variety of shelters and cabins, ranging from a tourist cabin for two to a five-room log cabin with a full bath and a separate kitchen, are among more than a dozen offered by the New York State College of Agriculture, Cornell University.

Plans available include "A" frame cabins, a two-bedroom vacation house, and a summer camp. Also available are designs for an open-front shelter called "Adirondack-type shelter," and an insect-proof barbecue pit using a large roof vent and heavy aluminum screening for good ventilation is listed.

Plans for these and other structures may be obtained by the resident of any state by writing to the Extension Plan Service, Riley-Robb Hall, Cornell University, Ithaca, N.Y. 14850.



A STINKING PROBLEM

by Amos Kirby
New Jersey Editor

IT IS both a sticky and a stinky problem. More and more dairymen, poultrymen, and hog raisers are finding that town people are acting like Hippies and Yippies over the odors that come from farm operations. Actually, there is more stink being raised over farm odors than over water pollution and Vietnam.

In the August issue of "Better Dairying," published by the Extension Service at the College of Agriculture, suggestions on how to reduce odors to an acceptable level are listed.

Odor proofing is a problem where the wastes are not disposed of daily. One suggestion is to spread it daily, and if possible when the wind is blowing away from irritable neighbors.

Confine the spreading to the morning hours. Spread it thin, and if possible disc it in the soil. Avoid spreading during holidays and evenings, when the neighbors are out of doors.

Holding tanks and lagoons are not the answer; these odors can become a problem. An Ocean County hog raiser was ordered to sell all his pigs in 30 days; and destroy the buildings within 60 days. This was a 100-acre farm, and the pens were not located near the boundary lines. Boards of health and local ordinances can become nasty problems. An air pollution problem from industry can ruin a crop, and there is little that can be done. A bit of air pollution from a barn, a henhouse, or a pig farm can soon put a farmer out of business.

The College is aware of what is taking place. One of these days they may come up with a product that will smother farm odors as well as B.O. for humans is smothered. That will be the day!

REVISING THE RULES

Look for a revision of the rules on controlling bacterial leaf spot on peaches. This year many South Jersey peach growers have suffered the worst infestation on record. Thousands of bushels of fruit were unmarketable, and many orchards were abandoned.

While the bacterial leaf spot has been known for upwards of 50 years, this was the first time that it ran wild. It was most damaging in orchards on the light sandy soils, but few escaped without any damage.

What Went Wrong?

That was the question to which even the specialists do not have the answer. County agricultural agent Ray Battle, Gloucester County, lists the weather as one of two possible causes for the leaf spot to run rampant through scores of orchards where the very best housekeeping methods have been religiously followed. Last spring there was a lot of wet weather, and high winds, and the normal control methods did not work.

Dr. Robert Daines, Division of Plant Biology, who for years has been working on this problem, has developed some partial control measures. In a control orchard in the Hammonton area (where the disease has been the most prevalent) Dr. Daines has found that the antibiotic Terramycin has given good control. But the same material used in other orchards failed to work. There is the belief that it could be a matter of the quantity applied; in his trial work Dr. Daines probably did a more complete coverage.

Immune Varieties

L. Frederick Nough of the Division of Horticulture, Rutgers, comes up with information that some varieties are nearly immune, while others are almost always victims of the disease and unable to show resistance. Two similar varieties show the contrasts. Sun High, a very popular variety, showed only 1 percent that was marketable, while another promising variety, Sun Queen, had 99 percent marketable.

This means that both planting and spraying rules may be in for some changes come another year.

A NEW APPLE

A new apple has emerged from the New Jersey Agricultural College Experiment Station. It looks like a McIntosh; tastes like one; eats like a McIntosh; has the color of a McIntosh; and it comes to maturity a full month ahead of the standard McIntosh. It looks like the variety New Jersey growers have been seeking, and would fill in the marketing period of August and early September.

It is not yet on the market. Too few trees are available . . . and won't be for another one to two years . . . but it looks like a winner from where the folks at the College sit. It's another of the fine varieties that have come out of the breeding program launched many years ago by the late Dr. M. A. Blake, and was introduced at the August Press and Radio Day sponsored by the College.

MECHANICAL HARVESTING

Both New Jersey and Delaware have some promising tomato varieties developed for mechanical harvesting.

Delaware had a yield of 17 tons of marketable tomatoes from a once-over picking; New Jersey figures are not available at this writing, but with a normal growing season 20-ton yields are peering over the horizon.

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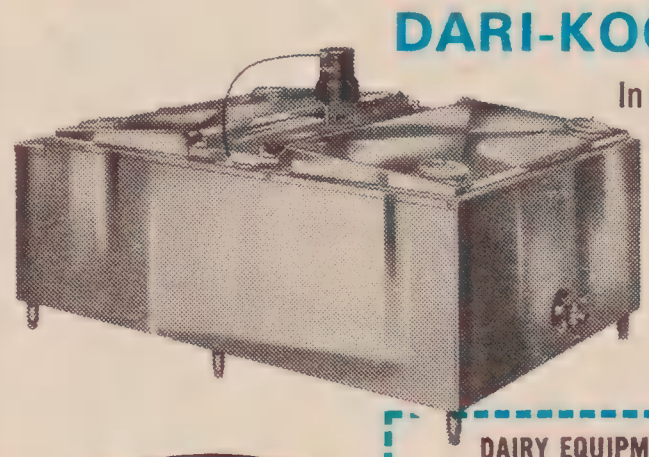
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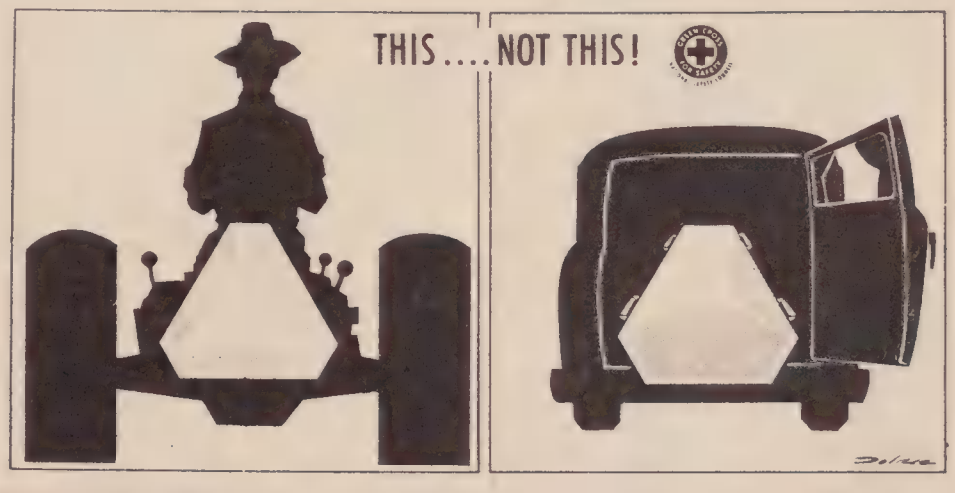
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Doc Mettler Comments On:

CHOKE IN LIVESTOCK

The author is a practicing veterinarian at Copake Falls, New York

It is easy to relax too much on an Indian summer day. Everything seems to be perfect, until the unexpected happens. I suppose if it weren't for the unexpected, working with livestock would be dull . . . but sometimes I'd like things to be at least a **little** duller.

Choke in cattle and horses always comes as a surprise to the owner, and he knows the affected animal needs help immediately. For some reason I had never seen a case of choke in a horse until a few weeks ago, and then two cases occurred on the same farm less than twenty-four hours apart.

Choke in cattle is far more serious and common than in horses. Most cow men are aware of the symptoms. Apples, pears, and potatoes are the most common objects that cows choke on. Objects such as cabbage stumps and ears of corn can cause fatal choke, too, but this is rare.

Starts to Bloat

A cow gulping down an apple without chewing, and having it stick in her throat, will start to bloat almost immediately, since she cannot belch up rumen gas in the normal manner. Unlike bloat from alfalfa or other causes, she will slobber to a great extent. I understand a cow with rabies can show symptoms similar to choke, so if you know a cow had no access to any object to choke on, and there is rabies in your area, don't go reaching into her mouth without good cause!

If the choke is high, and the apple or pear or potato can be felt, it is often possible to slide it up into the mouth, where it can be taken out by hand or with a loop of wire. Though this sounds easy, it isn't. A choking cow is in agony and fights you with all her strength.

Your best course of action when you have a choking cow is to call for veterinary help immediately. Your veterinarian will usually trocarize the cow to let the gas off the rumen, and then he can take his time and remove the apple carefully without hurting the cow or himself. Tranquilizers are a great help in quieting a fear-crazed, fighting, choking cow.

No Easy Way

On apples that are down beyond reach a large tube the size of a dairy steam hose can be used to push the rest of the way down. Potatoes or pears are a different story. I ruptured the esophagus on a cow with such a hose trying to push down an oblong potato several years ago, and since then I've felt that there is no easy way out on all bovine chokes.

Sometimes if the bloat on a cow is relieved and she is just left to stand, or treated with smooth muscle relaxants, she will get better without any further treatment. On the opposite extreme, I have heard of cows . . . after being jumped over a low fence . . . coughing up the apple. I've also heard of people crushing the apple with two blocks of wood. Both ways probably have worked, but the latter is a good way to rupture the esophagus and kill a cow.

Some veterinarians feel that every farmer should know when to trocarize a cow in an emergency. This is probably correct, but it is best to have someone show you where before you ever attempt it. However, don't ever trocarize a cow unless you feel sure she is going to die if you don't.

Dry Choke

Since horses chew things better than cows, they seldom if ever choke on things like apples or potatoes. Unlike a cow, the choke in a horse is usually a so-called dry choke from dry ground feed or hay. Choked horses don't bloat, and time is the best cure if the owner and the horse can stand it.

A few weeks ago a call came in from a young women who said her horse was in violent pain, vomiting, and she couldn't reach her own veterinarian who was on vacation. I told her that most horses that vomited were already beyond help, but I would come see what I could do.

On the way to the call the thought of choke went through my mind, but I'd practiced for twenty-one years without seeing a choke in a horse and probably this wasn't one either. When I reached the farm the horse was not actually vomiting, but bring-

(Continued on next page)



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ing up small amounts of clear saliva. He would arch his neck every few seconds, squeal, and then drop his head and out would come the fluid, through his nostrils. Apparently earlier there were small bits of grass and hay coming up with the saliva.

The horse had been ridden that afternoon, cooled out, and then put in a box stall with no feed, but bedded with old spoiled timothy hay. He was an old horse, and in the girl's words "a regular hog." He had started to eat the bedding, and in a few minutes began acting the way we found him. I couldn't feel any mass in the throat, which is apparently often the case. The owner said that shortly after the choke began she had started to walk the horse, thinking he had colic. He had taken a few mouthfuls of grass, but it came right back up again.

The horse was given a pain killer and some tranquilizer intravenously, and in a few minutes he seemed quieter. He was cross-tied, blanketed, and the owner told to be patient. The only other treatment was to offer him a swallow of water every hour or so, which he wouldn't accept.

During the night the pain killer was repeated once. In twelve hours there was no change. It has been reported that horses have made spontaneous recovery after as long as six days. While waiting, the mass in the throat softens, and if there is an actual spasm of the esophageal muscle it may relax. Probably more choked horses are killed by overtreatment . . . such as forcing down water or oil with a stomach tube or just plain forcing with a tube, or probing . . . than die from the choke itself. This is all fine to know, but when it is your own horse the natural reaction is "can't something be done?" Since this was the first case I'd ever seen, it seemed a long wait to find out what was really going to happen.

Better By Waiting

Fourteen hours after the first call I stopped in to see what was going on. The owner told me that the horse seemed quieter the past hour, and was no longer bringing up saliva . . . but he still wouldn't try any water. A two-ounce dose syringe full of water was given and repeated three times. He swallowed eight ounces without bringing any water back. Next a handful of coarse grain was offered. He ate it and wanted more. Finally he took five swallows of water. My first equine choke case had gotten better by waiting! Everyone concerned, including the horse, was relieved.

The following evening, on the same farm, a young stallion started to show symptoms of choke when he had had nothing to eat for several hours, and had not had access to anything to choke on. This seemed too much of a coincidence, and yet he was definitely choked. He cleared up by himself in less than twelve hours, and since then I understand everything has been quiet on the farm. If anyone can ever explain to me why coincidences like this happen, I would certainly be interested.

PREFERS INTEGRATION

Walter Pac of Warsaw, New York, comments that he wouldn't be in the poultry business as a complete independent. He's integrated with Weidner's of nearby Hamburg . . . an outfit that produces hatching eggs, operates a hatchery and feed mill, and markets eggs in large quantity. "I can still remember 1959 when we sold eggs for 18 cents a dozen," says Walter. He's been tied in with Weidner's for 5 years, and believes he's money ahead of what would have been the case had he been independent.

The Pac laying house is 40×260 feet . . . plus a 16×24 egg-room wing, and a 30×36 wing housing the pit cleaner discharge. Pits under the modified-stair-step cages are six inches deep . . . can hold a four-month accumulation of droppings, but are usually cleaned every two months. Walter has 25 acres of his own land on which to spread manure; some has gone to neighboring dairy farms.

Cages are 12×16 inches, and original house capacity was 12,000 birds at two birds per cage. Walter has been experimenting with one row of three birds in the same-sized cage and results in terms of production and mortality are encouraging. He's planning to put three birds per cage all through . . . raising capacity of the house to 18,000. He does not plan to add perches inside the cages.

Egg production is Walter's major occupation, but his hobby is making wine. He has a wealth of literature on the subject and considerable experience. Anyone who'd like information about wine-making may send a stamped self-addressed envelope and their question to: Walter Pac, R.D. #2, Warsaw, New York — *GLC*

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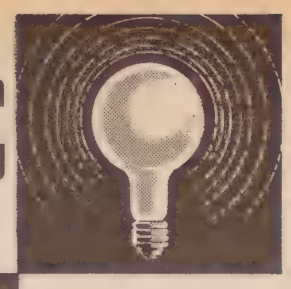
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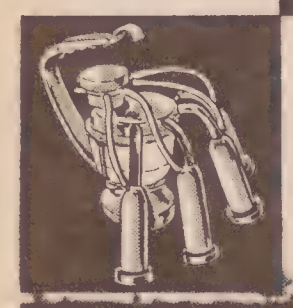
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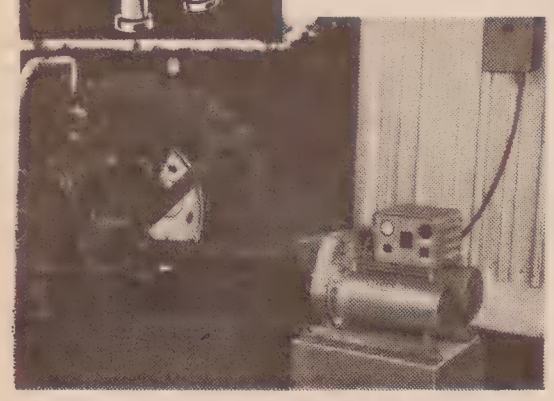
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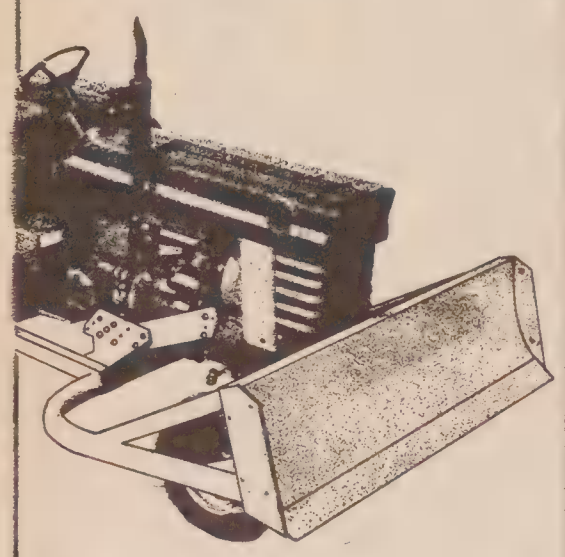
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Curacao, capital island of the Dutch West Indies and one of the most cosmopolitan in the Caribbean. Willemstad is a charming town of rainbow-hued buildings, and the city is divided into two sections by the famous Queen Emma pontoon bridge that swings open to let ships pass in and out of the harbor.

In **Nassau,** we'll shop on picturesque Bay Street, noted for its bargains in crystal, woolens, silver, cashmere and perfumes. We'll also see ancient forts, the Queen's Staircase, the native market, Government House, and Ardastra Gardens.

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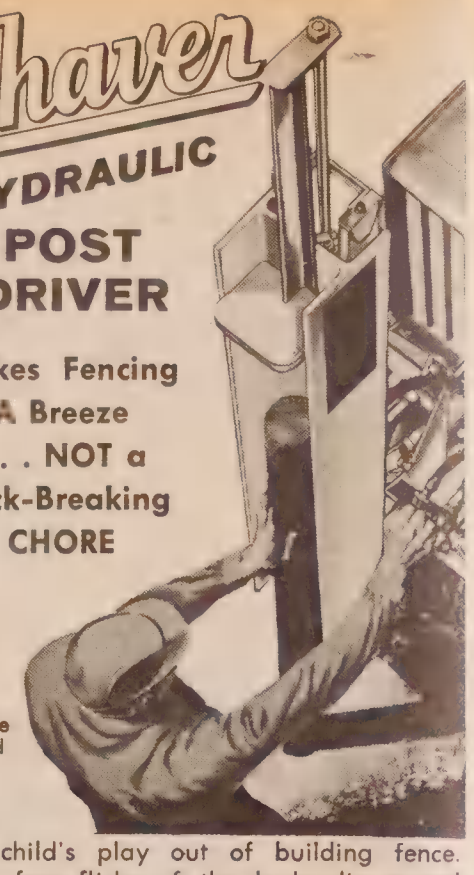
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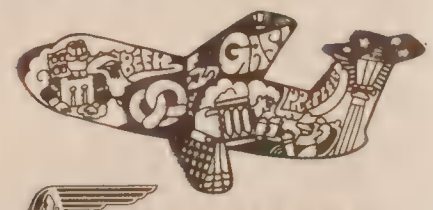
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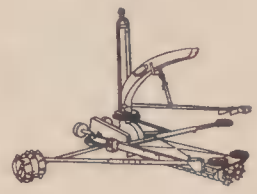
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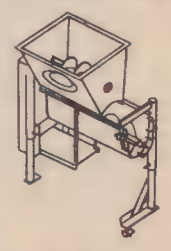
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(Continued on page 35)

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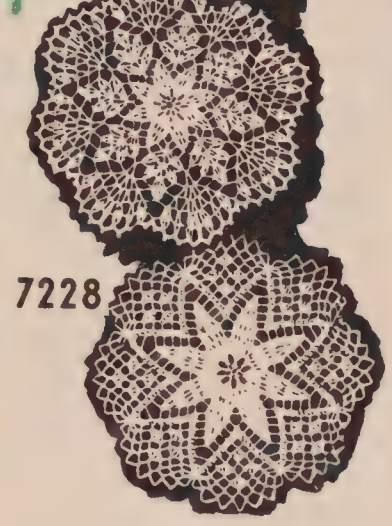

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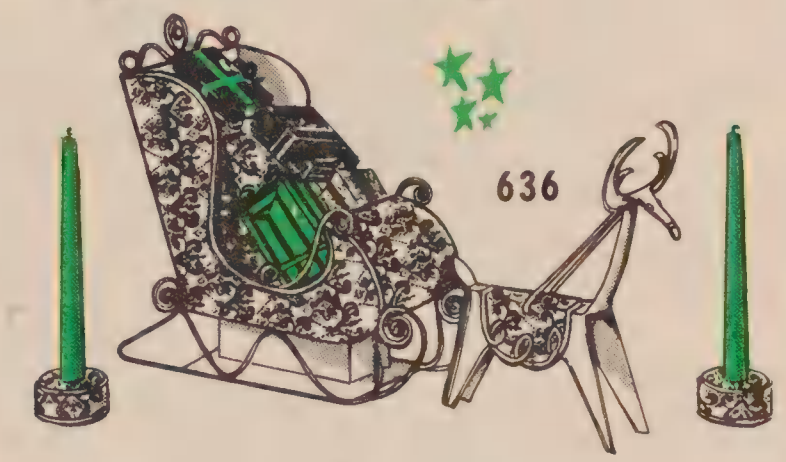

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503


7415




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929



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BE SURE TO USE YOUR ZIP

Softened butter
1 salad mixtures of your own choice (see suggestions below)
2 8-oz. packages cream cheese, softened
3 to 4 tablespoons light cream
¼ cup mayonnaise

For salad mixtures, choose those that go well together and offer a variety of color and flavor; you will need about 1½ cups each of three. Some suggestions are ham or shrimp salad, egg salad, and cream cheese with dates and nuts; chicken or tuna salad, ham salad or egg salad, and a raw vegetable mixture; cream cheese with green peppers and pimiento, egg salad, and shrimp salad.

Make fillings and chill. Make frosting as follows: Cream cheese and mayonnaise together, gradually add cream, and beat until light and fluffy. If you wish a tinted frosting, beat into cheese mixture 2 tablespoons finely chopped pimiento, or add paprika.

Cut crusts off bread and cut the loaf lengthwise into 4 even slices. Place one slice on serving platter and spread with softened butter (not melted). Spread with one of fillings. Butter second slice of bread and place on filling, buttered side down. Spread with butter and another filling. Repeat with third slice and third filling. Butter last slice of bread and place on loaf buttered side down. Wrap loaf tightly in waxed paper, foil or a moist towel and chill several hours.

Frost entire loaf with the fluffy cream cheese mixture, leaving it in rough swirls. Decorate with diagonal lines of pickle or green pepper strips and sliced stuffed olives. To serve, cut in slices about 1 inch thick. Makes 10 to 12 servings. Border platter with crisp, crunchy raw vegetables and whole canned apricots rolled in coconut.

NEW FOODS

Bac*Os, a new crispy vegetable protein food with bacon-like flavor developed by General Mills are now to be found in the canned meat section of supermarkets. Just open a jar and spoon out amount needed to crisp a salad or casserole, flavor a sandwich, or brighten up the morning scrambled eggs.

New Powdered Whole Milk now has flavor of fresh milk, making it more acceptable as a beverage. The new method of production was developed by U.S.D.A. researchers.

KITCHEN BOOKSHELF

Single copies of the following USDA publications may be obtained by mailing a post card request with name, address, zip code and name of booklet to **Office of Information, US Dept. of Agriculture, Washington, D.C. 20402.**

How to Buy Beef Roasts, HG-116, explains beef grades, how to identify and select, and number of servings per pound for oven roasting and pot-roasting.

How to Buy Beef Steaks, HG-145, explains grades and inspection marks for wholesomeness, with illustrations for identifying different steak cuts.

How to Buy Fresh Vegetables, HG-143, describes how to select vegetables for freshness and quality.

The following booklets may be obtained by mailing your request with name, address, zip code, and name of booklet, along with required charge to **Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.**

Calories and Weight: The USDA Pocket Guide, HG-153, covers more than 400 foods and beverages, with height-weight charts and suggestions for balanced, low calorie diets. 25 cents.

Baking for Persons with Food Allergies, HG-147, a new publication for individuals whose diets must exclude wheat, milk, or eggs. 10 cents.

DOUGHNUT CONTEST WINNERS

The list of Pomona winners in the 1968 Doughnut Contest, sponsored jointly by American Agriculturist and New York State Grange, is now complete. These county winners will vie for top honors and a host of exciting prizes in the state contest finals to be held at Fredonia, New York, where State Grange will be held later this month.

Our December issue will bring you the story of the state contest, together with names of the 25 high winners, the recipe that comes in first, and pictures of all the baking champions at State Grange when the winners are announced.

Here are names of the 53 people who will send doughnuts to the state contest in Fredonia.

COUNTY WINNERS

COUNTY	GRANGE	WINNER
Albany	Hiawatha	Mrs. Amelia Andersen
Allegany	Canaadea	Mrs. Patricia Morse
Broome	Binghamton	Mrs. Addie Parker
Cattaraugus	Mansfield	Mrs. Marian Cross
Cayuga	Auburn	Mrs. Merrick Vincent
Chautauqua	Kennedy	Mrs. Julia Ormond
Chemung	Chemung	Mrs. Eugene Cole
Chenango	Nrwch. Twnshp.	Mrs. Wesley Rowe
Clinton	Mooers	Mrs. Myrtle Sample
Columbia	Austerlitz	Mrs. Marie Deitvein
Cortland	Homer	Mrs. Wilbur Forbes
Delaware	Wawaka	Mrs. David Stewart, Sr.
Dutchess	Sylvan	Mrs. Lewis Bassmer
Erie	Lawtons	Mrs. Minnie Minakime
Essex	Reber	Mrs. Norma Soper
Franklin	Westville	Mrs. John Ellsworth
Fulton	Mayfield	Mrs. Ursula Brownell
Genesee	N. Alexander	Mrs. John Meyers
Greene	Jewett	Mrs. Victor Every
Herkimer	Nowadaga	Mrs. Leona Cagwin
Jefferson	Champion	Mrs. Donald Burgess
Lewis	Adirondack	Mrs. Herbert Kamprich
Livingston	Keshequa	Mrs. George Hall
Madison	Brookfield	Mrs. Hale Hodges
Monroe	Honeoye Falls	Miss Gladys Lyday
Montgomery	Otsquago	Mrs. Grace Lighthall
Niagara	Pendleton	Mrs. Wilfred Miller
Oneida	S. Trenton	Mrs. Leo Garrett
Onondaga	Cicero	Mr. John Heidenreich
Ontario	Canandaigua	Mrs. Richard Rouse
Orange (blind	Hamptonburgh	Miss Jennifer Noteboom
Orleans	Barre	Mr. Berton Weaver
Oswego	Ricard	Mrs. Mary Risser
Otsego	Louisville	Mrs. Owen Douglas
Penn-Wyoming	Putnam Valley	Mrs. John Weise
Rensselaer	Brunswick	Miss Margaret Hayner
Saratoga	Greenfield	Mrs. Frieda Wagner
Schenectady	Glenridge	Mrs. Chester Clarke
Schoharie	Windy Ridge	Miss Helene Weidman
Schuyler	Tyrone	Mrs. Tracy Jayne
Seneca	Seneca	Mrs. William Ward, Jr.
Steuben	Wheeler	Mrs. Melvin Partridge
St. Lawrence	DePeyster	Mrs. Grace Parish
Suffolk-Nassau	Sound Avenue	Mrs. Virginia Wines
Sullivan	Monticello	Mrs. Viola Stewart
Tioga	Spencer	Mrs. Mary McNamay
Tompkins	N. Lansing	Mrs. Gladys Cooper
Ulster	Stone Ridge	Mrs. Isaac Graham
Warren	Glens Falls	Mrs. Gladys LaFountain
Washington	N. Granville	Mrs. Floyd Stoddard
Wayne	Newark	Mrs. Roy Hood
Wyoming	Warsaw	Mrs. Marian Powers
Yates	Crystal Valley	Mrs. Raymond Strait

NEW & USED EQUIPMENT

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LET IT BE KNOWN a dependable, experienced farm estate manager is available. Complete maintenance repairs, machinery, livestock (heifer chores), vegetables, fruit. Box 968-RG, Ithaca, New York 14850.

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SPARROW TRAPS

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STAMPS & COINS

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1968-S CENTS UNCIRCULATED, 25 $1.00. Merchant, 205 Houston Drive, Thousand Oaks, Calif. 91360.

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* * *

Mrs. Margaret Lewis, R. 1, #274, Suncook, N.H. 03275, would like to know the present location of the Justice Of The Peace that married Charles Walter Smith and Miss Emma, Amy or Winifred Ryan in Lawrence, Mass., around 1905. Miss Ryan was born in Cherubusco, N.Y. Also, any information on Mr. Smith who was born in Derry, N.H. and raised in an orphanage.

* * *

"I remember, I remember the pants I used to wear.
The colored coat of Joseph's with them could not compare."
If you know the rest of this poem, write Mrs. Dorsey Wisseman, Box 327, North Fork, Calif.

* * *

Mrs. Harold W. Greene, R.D. 4, Watertown, N.Y. 13601, would like to purchase a copy of "The Cedar Block" by Mary Lloyd Callaghan.

* * *

Mrs. H. E. Reitzel, R.F.D. 1, Box 122, Warsaw, N.Y. 14569, would like to know if anyone has strawberries called "3 Rivers."

* * *

Mrs. W. E. Baldwin, R.D. #1, Athol, Mass., would like small town Post Marks.

ADDRESSES WANTED

Descendants of Calthea Pierce of Crown Point, N.Y., who was adopted by the Taylor family. She married A. Williamson in Hubbardton, Vt.

* * *

Mrs. Bertie Stephens (or Steffens) Hendrickson who lived in Summit, N.J. in 1944. Originally came from Plainfield, N.J.

* * *

Ancestors, brothers or sisters of James Jackson, who moved from Duanesburg, N.Y. to Halls Corners (Navarino), N.Y. 1805-1806.

* * *

Martha Harry (married name unknown), lived Fordham and University Ave., Bronx, N.Y.C. Spent summers in Stillwater and Ketchum Corner area of upstate New York.

* * *

Dr. Paul B. Sawin, last known address Brown University, Providence, R.I., in 1932.

* * *

Thomas Martini, Hyde Park, Mass. At one time stationed in Winter Harbor, Maine, while in navy.

* * *

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

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I certify that the statements made by me above are correct and complete. A. James Hall, Publisher



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TRACTOR — AUTO COLLISION FATAL



Mrs. Paul Sherman of Springville, Pa. received $2000.00 check from agent Paul Wyak of Binghamton, N.Y.—her husband's policies were in force only eight months.

Mr. Sherman, driving tractor with corn planter in tow, was returning home in the evening from helping his neighbor. Without warning a car sped over the hill from behind and crashed into his rig. Mr. Sherman was thrown into a culvert crushing his head against a concrete abutment. A passerby stopped then called for an ambulance. About two hours later Mr. Sherman passed away in the hospital.

HER LETTER OF THANKS

"I wish to thank the North American and Mr. Wyak for the check of $2,000.00. It will help with the final expenses. I'm glad North American stopped by when they did; it just happened to be 8 months before my husband was killed. I wish to recommend this Company —the benefits are good even though the payments are low."

Alice M. Sherman

OTHER CLAIMS PAID

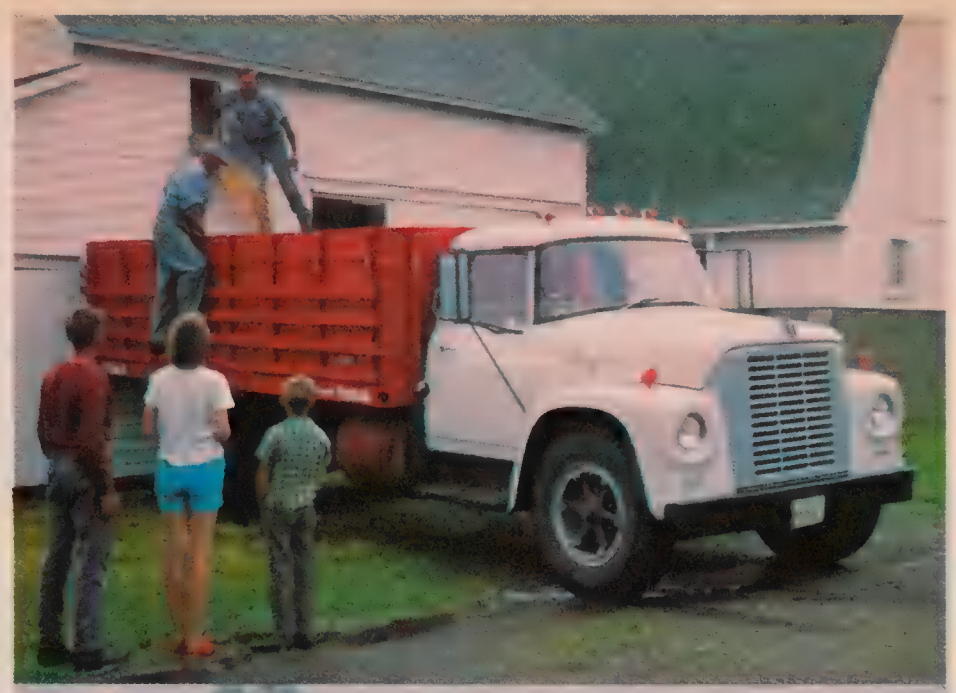
Sidney Coombes, Almond, N.Y. — Caught between rope and post—inj. hand	$ 925.99	**Walter Howes, Medina, N.Y.** — Caught in corn picker—injured hand	$ 634.59
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Stanley Waite, Little Valley, N.Y. — Truck accident—broke rib	510.00	**Frank Miller, Cooperstown, N.Y.** — Motorcycle accident—broke leg	145.40
Elizabeth Collins, Aurora, N.Y. — Circus tent blew down—cut head	694.56	**Richard Rowen, Lisbon, N.Y.** — Caught in spreader—inj. hand	698.88
Adam Skardinski, Cato, N.Y. — Auto accident—inj. leg, concussion	793.40	**Harold Moore, Hammond, N.Y.** — Kicked by cow—internal injuries	1202.65
Lawrence Spacht, Sherman, N.Y. — Pole fell off truck—broke leg	1975.00	**Harry Rubin, Cobleskill, N.Y.** — Stepped on by cow—inj. foot	280.00
Miles Jackson, Horseheads, N.Y. — Saw horse broke—inj. head, ankle	140.85	**Harold Strait, Greenwood, N.Y.** — Caught in PTO—injured leg	1518.50
Alexander Poole, Greene, N.Y. — Horse slipped and fell—broke foot	568.56	**Marie Jacobs, Nichols, N.Y.** — Caught in conveyor—broke finger	213.30
Gilbert Rabideau, Mooers Forks, N.Y. — Stepped on stone—injured ankle	529.32	**Byron Jacobs, Nichols, N.Y.** — Kicked by cow—broke leg	292.56
Dean St. John, Cortland, N.Y. — Playing football—inj. knee	626.16	**William Davis, Ludlowville, N.Y.** — Caught in grinder—broke finger	160.71
Albert J. Stevens, Cortland, N.Y. — Riding horse fell—broke leg	201.42	**Morris Sims, Kerhonkson, N.Y.** — Fell against steering wheel—inj. ribs	359.00
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Herbert Sweet, Chateaugay, N.Y. — Struck by auto door—inj. knee, abdomen	2605.00	**Paul Conrad, Sr., Strykersville, N.Y.** — Cranking tractor—broke arm	487.02
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Robert Baderman, Rodman, N.Y. — Fire cracker explosion—injured hand	515.18	**Raymond Egli, Jr., Roaring Branch, Pa.** — Auto accident—multiple inj.	1674.28
Bruce MacDonald, Watertown, N.Y. — Playing football—injured knee	200.00	**Richard Kingen, Waterford, Pa.** — Hay mow collapsed—inj. neck	1005.84
Steven Fazekas, Yurin, N.Y. — Kicked by cow—inj. ankle, foot	869.26	**George W. Burgess, Cochranton, Pa.** — Thrown from bulldozer—inj. knee	725.00
George Albright, Cazenovia, N.Y. — Slipped, fell—broke knee	154.42	**John M. Jones, Blairstown, N.J.** — Crank of hay elevator slipped—broke arm	125.25
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James Edinger, Tully, N.Y. — Car door blew around—inj. jaw, teeth	105.00	**George P. Howard, Caribou, Me.** — Tractor accident—broke arm	116.14
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Emil Schneider, Pine Bush, N.Y. — Tree limb fell—broke foot	100.00	**Sarah Merrill, Randolph Center, Vt.** — Auto accident—inj. leg	443.57

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Wider choices with more models, more options and more features will greet buyers of 1969 automobiles and trucks. There'll be more comfort, more safety, more color and more equipment to tailor each vehicle to the purchaser's specific needs. "Our trucks feature the 'user package concept' whereby customers are able to buy a vehicle equipped with an option group designed to fit their particular needs," a vice president of one major line reports. Others echo the same thinking, and have laid out an array of trucks, pickups, buses, vans and campers that match the models and product lines of automobiles. Some autos are catering to youth, others to performance-minded drivers; some are strictly in the luxury class, others have economy in mind. All are plushier, softer-riding, deeper-seated, sleeker and more colorful. Greater emphasis is on safety, with improved brakes, wide tread tires, driver safety reminders. Better designed bumpers improve safety on some, greater body strength protects against passenger compartment penetration in side collisions in still other offerings.





International Loadstar medium-heavy-duty truck (left) is available with gasoline, LP-Gas or diesel-powered engines, and offers a wide choice of wheelbase dimensions for maximum efficiency. In the Dodge line (left, below) versatility and styling highlight the changes for 1969. Riding comfort and vehicle handling are improved in both light and medium duty models.

Oldsmobile's high-performance 4-4-2 (right, above) has a new, special rally hood paint scheme, styling changes to give it a new front and rear appearance.





Chevrolet's light conventional trucks (above) feature higher hood line, massive front end.





'Jeep' Gladiator trucks (left) come with two high-efficiency power plants, 350-cu.-in., 230-hp V-8 and 145-hp OHV 6-cylinder engines. Both are available with automatic or three-speed transmissions, and with four-speed transmission standard in dual rear wheel models. GMC pickups (left, below) provide a stylish, dependable load and passenger vehicle for town or country. Available in 2- and 4-wheel drive, they are powered by V-6's, V-8's and in-line 6's.



A new farm truck with a Lifetime Cab; that's "The Trend" line, on the market from White Motor Corporation (top, above). Cab will never rust, corrode or deteriorate, says manufacturer. Engine is 185 hp, chassis frame is 9½" deep, with choice of five wheelbase lengths. Ford Ranger (bottom, above) features heavy duty suspension, battery and alternator, rear step bumper, pickup box sideboards.

Here! New '69 CHEVROLET TRUCKS!

Half-ton Fleetside CST Pickup

Now there are even more reasons why Chevrolet is more truck.

For '69, Chevrolet goes to new lengths in modern pickup design. We mean Chevy Fleetside pickups with up to 8½-foot boxes. They're built to do more work around any farm. Or, if you're a camping buff, they'll take the biggest of camper bodies.

You'll get more styling in any '69 Chevy pickup model you select. New touches include a bold new front-end profile and bright new aluminum grille.

Inside the cab, new bench or available bucket seats are more comfortable; thick insulation keeps it quieter. Under the hood you can have it any way you want it in '69. By ordering the new 350-cu.-in. V8 or one of five other V8's and 6's, up to 310 hp.

We have a whole catalog full of reasons why a Chevy pickup is more truck. Like full coil spring ride on most models. Plus work-proved independent front suspension. And double-wall steel in vital areas. And special rust-resisting features. The very best of reasons. You'll see, when you see the new '69s at your Chevrolet dealer's. . . . Chevrolet Division of General Motors, Detroit, Michigan.



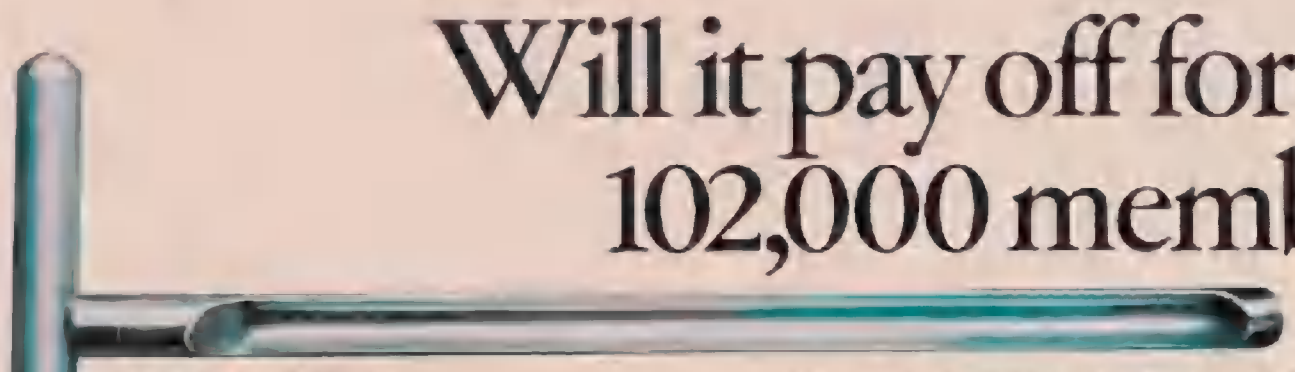
More power for Chevy medium-duty models. Stay ahead on the job with a big Series 40 or 50 model, newly equipped with spirited 350-cu.-in. V8, rated at 200 hp. There's a wide range of Chevy trucks, gas and diesel, for your farm jobs.

CHEVROLET

More trucks are Chevrolets because Chevrolet is more truck!

$7 million will be spent on P and K in the Northeast this fall and winter.

Will it pay off for Agway's 102,000 members?



No doubt about it.

Fall and early winter are excellent times to apply phosphorus and potash for next year's corn. And to your orchards, as well. It's also recommended that you top-dress your alfalfa in the fall with phosphorus, potash, and boron to help resist winter damage. But don't surface-apply fertilizer in the fall where there's more than a 5% slope.

Obviously, any work you do this fall takes that much pressure off next spring. And, generally, the ground takes less of a beating in the fall: less rutting, less compacting. Still another major factor to weigh is the $5 per ton you save by buying and spreading Agway high-analysis fertilizer in November, and the $4 per ton you save in December. Perhaps more, depending on cash and volume discounts. Agway can help you work out the details.

Fall fertilizing is a clear-cut area of decision as far as phosphorus and potash are concerned: Agway recommends it highly. Other areas are not so simple or clear-cut. For example: how much fertilizer and what analysis you need to get the most profitable yields. This is where Agway Farm Enterprise Service can help you.

Farm Enterprise Service is a broad group of farm-information and business-related services developed by Agway to meet the needs of members in areas of decision making: how to make the best use of land, capital, labor; which crops to plant; which seed varieties to buy; what chemicals to use; what are the least-cost routes to profitable feeding; what to build; how and when to automate.

Farm Enterprise Service is tuned to the fact that farming is a complex business. The investments required demand the right decisions to assure financial safety and adequate returns. Agway is adapting to these new conditions by providing new services that meet farmers' new needs.

Enterprise and your objectives
One part of Farm Enterprise Service is planning, in detail, your total crop program in relation to all other parts of your farm enterprise. It enables you to determine how many acres of what crops you need to plant to meet your feeding and financial requirements; how much phosphorus and how much potash are actually in the ground; how much fertilizer and what analysis must be applied on each field; the advantages of having it spread by Agway; which seed varieties and pesticides are required to attain the yields you need.

How to go about it.
The practical way to find out about Farm Enterprise Service and how to put it to work for you is to test it by asking what is your least-cost fertilizing program beginning this fall. To get things started, visit your Agway store or representative, or write to N. E. White, Agway Inc., Box 1333, Syracuse, N. Y. 13201.



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For The Northeast Farmer

American Agriculturist and the RURAL NEW YORKER

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OUR COVER

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Photo: Mrs. Paul F. Barker



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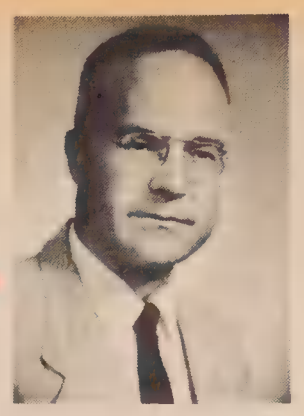
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CHEVROLET

EDITORIALS



by GORDON CONKLIN

THANKSGIVING PRAYER

Our Father, we are grateful for the beauty of the earth and the splendor of the skies . . . for another bountiful harvest pouring forth from the great horn of plenty fashioned by the farm families across the land. Their efforts, aligned with the orderliness of Thy universe, have brought to pass in our nation the fulfillment of that age-old prayer, "Give us this day our daily bread."

Such overflowing abundance is a new chapter in the saga of the human race . . . help us to manage ourselves more constructively amidst such affluence. Guide and strengthen us in protecting our nation from those who seek to destroy it. Above all, help us to compare the pluses and minuses of our people . . . and perceive the great residue on the plus side of their human ledger.

Our hearts give thanks also for the ongoing process of inner growth within our minds and souls . . . the pushing back of mental and spiritual horizons so that we can drink a bit more deeply from the cup of life.

We sense but dimly the reasons why the fabric of our days must contain threads of heartbreak, agony and despair. Perhaps their darkness creates a vibrancy of color and a toughness of fiber in what would otherwise be merely a drab garment for self-centeredness.

Behind the toothpaste smile which we turned to our world this waning year, each of us knew that every day of 1968 has brought our bodies one step nearer the final destination of all flesh. But even the Valley of the Shadow beckons to our tired bodies and troubled hearts . . . for there within the shadows is the door through which we and our loved ones move into dimensions beyond our present knowing.

And so, in this November of 1968, we give thanks . . . for the abundance of living, and the privilege of dying.

DDI FOR R&D

The creation of Dairy Development, Inc. by 12 northeastern cooperatives is a step forward in the realm of dairy product research and development. Agway served as the catalyst that encouraged eleven dairy cooperatives to unite in the project . . . even including Eastern Milk Producers, an organization whose leadership normally marches to no music not strictly its own.

DDI offers real possibilities for increasing the per capita use of milk . . . and for more constructive cooperation among dairy cooperatives.

SPACE

In this land of ours more than 140 million people . . . 7 out of every 10 . . . are jammed on just two percent of the nation's land area. Following the lure of jobs and the bright lights, people have swarmed to the urban areas of the nation . . . but they still long for elbow room.

On November 5, New Hampshire voters will express their collective opinion about Constitutional Amendment No. 7, allowing the Legislature to consider assessment of land based on its current use . . . rather than on its value for some other potential use. Preferential assessment of farm land already exists in some form in the states of New Jersey, Connecticut, and Maryland.

There are problems with such special assessment laws and procedures, but there is some evidence that they do slow the process of carpeting the countryside with concrete and split-levels. Urban people have a stake here in terms of preserving open space; farm people have a stake in avoiding overwhelming tax levels that would force them to sell the land for other purposes.

After comparing the very real drawbacks with the potential advantages, I conclude that Granite Staters will do well to vote "yea" on number 7.

SMELLY SITUATION

The New York State Air Pollution Control Code includes the little-known Section 186.1 of Title 10, making it illegal to "emit or permit the escape of odors into the outdoor atmosphere in quantities, of characteristics, and of a duration which *unreasonably interfere* with the comfortable enjoyment of life and property in that area." Up until recently, farmers were either unaware of its existence, or figured it wasn't anything to worry about.

A few farmers over the State now know better . . . their neighbors have seen to that. A pig farmer in Schenectady County 150- 200 hogs) has in effect been ordered to cease operation or pay heavy fines . . . the order couched in nice legalese that says he "must confine the odor within his property lines." Other farmers have been investigated but not as yet ordered to cease operations. A State legal official says firmly that no indemnity will be paid anyone ordered to go out of business, although some lawyers argue that it is in effect a condemnation.

Whenever a complaint about odor is made, local health department authorities must begin an investigation. In the final analysis, the judgment of investigators from the State Air Pollution Control Board seem to weigh most heavily in a decision by the State Commissioner of Health.

Everyone concerned with air pollution agrees that measurement of odors is an entirely subjective matter . . . depending on the human nose rather than on objective tests that would scientifically nail down just how much odor exists, and exactly what is causing the smell. Furthermore, the question of the degree of "interference" is entirely a matter of judgment . . . what is "reasonable," and what is "unreasonable?"

There just are no clear-cut guidelines that anyone can follow, compliance with which will insure staying out of trouble with the air pollution control people. Collectively and individually, farmers are vastly outnumbered across the State, so they're outvoted in any odor popularity contest.

At the moment, there is evidence that the State air pollution control people are moving slowly against farmers, and that they have no intention of deliberately clobbering anyone. However, government personnel come and go . . . the "he stinks" accusation could become a farm catastrophe in the hands of some future administrator who might be incompetent or vindictive.

Farmers must recognize and cope with this Pandora's box of potential harassment. **First,** by doing whatever they can to reduce odor problems . . . and avoid the pitfall labeled, "I'll do as I damn well please . . . it's my land." Farmers haven't always been wise in dealing with their nonfarm neighbors; the Golden Rule is just as applicable in connection with this problem as with any other. After all, farm women never appreciated the smell of high-moisture grass silage, and they said so in no uncertain terms!

Secondly, farmers should push their organization leadership to test the constitutionality of the Code, to stimulate research on odor abatement techniques, and to press for agricultural involvement in air pollution control activities.

The Agricultural Resources Commission, already authorized by the Legislature and Governor Rockefeller, could well begin work on the knotty problem of air pollution laws affecting farming.

Finally, and perhaps most important of all, let's take a closer look at one of the zoning recommendations made by the Commission for the Preservation of Agricultural Land. It would delineate agricultural zones in the State within which all persons are put on notice that farming has top priority . . . thereby keeping harassment of farmers at a minimum. Public agencies condemning land within these zones would also have to go through special steps to justify condemnation of farm land. Farmers in the zones would still be able, however, to sell their land to the highest bidder.

If farmers are going to farm . . . and if nonfarmers want food and open space . . . we've got to get cracking on the problems of animal B.O. vs. sensitive noses!

MILK PROMOTION

The New England Milk Promotion Advisory Committee, chaired by Elmer Towne of Montpelier, Vermont, has made these observations in its report:

1. Milk promotion has always been desirable and profitable to producers, and imperative under the present threat of milk substitutes. The Committee concluded that filled milk is as much an economic hazard to dairymen as ever.

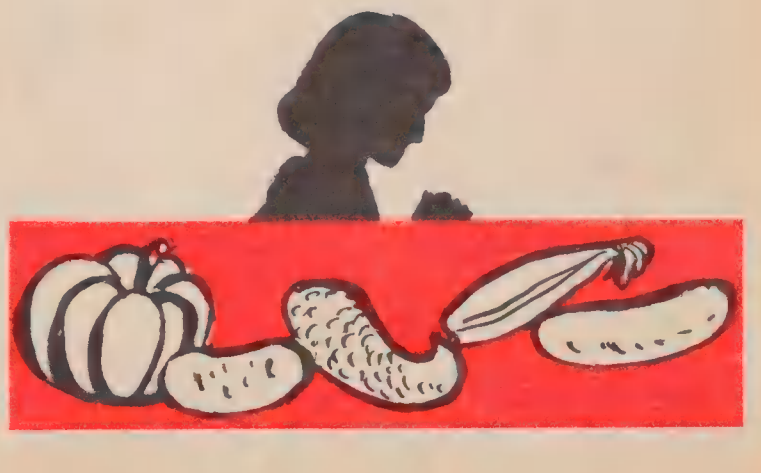
2. Five cents per hundredweight is the level of investment in milk promotion deemed most desirable.

3. The most disturbing item considered by the Committee was persistent and accelerating decline in New England's per capita consumption of fluid milk.

4. Automatic co-op milk check deductions from all members offers the best "near future" way of financing promotion costs.

5. Milk promotion by itself will not solve all the problems of dairymen, but it's a useful arrow for the dairy bow that hasn't seen as much use as it should have.

Feed prices are relatively low, and milk prices at all-time highs in the Northeast. The temptation is to do nothing until dire emergency forces clamor for "action now." But dairymen will be better off in the long run if they heed the advice of this Committee . . . getting their house in order at a time when moves can be made without the frantic urgency of calamity.







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FORESTRY

Recreation Guide – Publication of the 1968 "Recreation Guide" to the National Forests was announced recently. This attractive 72-page booklet is a handy reference, providing general outlines of the history of the national forests, geography, major attractions, products, and wildlife. Individual recreation sites are listed on easy-to-read charts and illustrated. A copy may be obtained by writing U.S. Forest Service, Division of Information and Education, 633 West Wisconsin Avenue, Milwaukee, Wisconsin 53203.

❖❖❖

Logging – In the Southland a new and spectacular machine for cutting timber has been recently developed. It consists of hydraulic tree shears . . . operating like a pair of scissors, one arm stationary, the other activated by hydraulic pressure. Trees are snipped off at stump height.

The shear can be mounted on the front end of a crawler-tractor or rubber-tired skidder. It is claimed that it is capable of cutting through a 24-inch pine and 10 to 12-inch hardwood. The efficiency of this machine allows it to take the place of two or three men with chain saws. Not only that, it is relatively inexpensive. It will be necessary, however, according to Cornell University forestry specialists, to adapt them to larger hardwood and more rugged terrain if they are to be accepted in the Northeast.

❖❖❖

Syrup—The Northeastern Forest Experiment Station's Laboratory at Burlington, Vermont, is the only Forest Service facility in the country currently doing research on maple sap production. Scientists there recently obtained a 385 percent increase in sap yield by attaching a vacuum pump to a plastic tube collecting system. The use of vacuum pumps therefore offers large potential increases in sap yield along with greater profit for the operator.

Detailed information on this discovery, as well as additional information on forestry research in the Northeast, may be obtained from: Information Services, Northeastern Forest Experiment Station, 6816 Market Street, Upper Darby, Pa. 19082.

❖❖❖

Directory – As part of its regular August 1968 issue, "The Northern Logger & Timber Processer" included a new directory of manufacturers of products for loggers, foresters, and sawmill operators. More than 141 products and the 360 companies which produce them are listed in this easy-to-read buying guide.

In addition to a complete list of products and firms which produce them, the directory includes names, addresses, phone numbers and key sales people, as well as in many cases the local distributors of the products.

Individual copies of this issue are available at the regular monthly price of only 35 cents and can be obtained, along with subscription information, from the magazine's Mid-America Office, P.O. Box 411, Wisconsin Rapids, Wis. 54494.

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Cuts Bucking Costs – Pulpwood bucking and loading operations are speeded by the BUCK-MASTER slasher-loader, shown above, recently introduced by Allis-Chalmers. One man, working in conjunction with skidders bringing the logs to the landing, can process and load up to 50 cords per day with this rig, which cuts the pulpwood logs into 63 to 100-inch sticks and loads them onto trucks, on pallets, or stockpiles them.

The Buckmaster features an oil shuttle clutch that permits the operator to control travel speed from zero mph to rated gear speed. Loads can be "inched" on roughest terrain. And the unit can be guarded against vandalism with a cover that can be locked over gauges and meters on the instrument panel.



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FRUIT



Grape—Growers of Concord grapes can get an early indication of the size of their crop by watching closely daytime temperatures while flowers on the newly-forming cluster are in bloom, says Carl W. Haeseler, pomologist at the Pennsylvania State University.

Dr. Haeseler found that temperatures from about 65 degrees Fahrenheit to 80 degrees Fahrenheit during the period of Concord bloom in June and early July were best for fruit set. On the other hand, fruit set was cut sharply when day temperatures were about 60 to 65 degrees F. Equally troublesome were high temperatures of about 90 to 95 degrees F.

Census—Recently published is the 44-page "New Jersey Orchard and Vineyard Survey" of 1967 . . . containing an in-depth account of the fruit situation as of that year. Similar surveys have been done in New York, Pennsylvania, Delaware, and Maryland. Anyone interested in having a copy should check with their county agent, or write directly to their state department of agriculture.

Two New Apples – Two new apple varieties are being released in 1968 by the Geneva Experiment Station for extensive commercial trial. **Jonagold** is a cross of Golden Delicious and Jonathan, has an attractive appearance, large fruit size, Jonathan-like flavor, and excellent eating quality. The tree resembles Golden Delicious in its strong wide crotches, but is more spreading like its Jonathan parent. It is vigorous, of medium size, and produces its crop mainly on spurs.

Spijon is the result of a cross of Red Spy and Jonathan. The tree is upright spreading, with terminals that tend to be somewhat drooping. The fruit ripens with Northern Spy, the size is large, the skin color is an attractive bright somewhat dark crimson. The attractive color makes possible dual-purpose selection, useful both for the processing and fresh markets.

Grape Harvester – John Archer of North East, Pennsylvania, has 250 acres of Concord grapes trellised on the relatively new Geneva Double Curtain . . . rows nine feet apart, and vines at an interval of eight feet in the row. All vines were re-trellised from conventional trellising . . . 80 acres converted per year.

Trellis wire is number 8, and carries the name "Bethlehem Bright Basic" . . . a hard wire that won't stretch, and one which John has settled on after trying several.

He reports hitting yields of 20 tons per acre on a few acres in 1967, but says he's "paid for it" in 1968 with lowered yields on vines that overdid a good thing. He's shooting for an overall yield of 10 tons per acre and believes it's realistic with the greater light exposure offered by GDC.

In '67, John harvested 300 tons of grapes with a Chisholm-Ryder mechanical harvester that weighs 8 tons . . . plans on more extensive use of machine harvesting in the future.

Archer's address is R.D.#4, North East, Pennsylvania 16428.

Migrant Housing – Some of the most modern housing facilities for seasonal farm workers in the Northeast have been built by Frank W. Baker, Ransomville (Niagara County), New York. It's a 10-unit structure measuring 72×26 feet, and resembles a motel. Rooms are 12×12 feet, and each will accommodate two persons.

Baker points out that his workers shouldn't be called "migrants," but should more accurately be referred to as professional fruit pickers.

County agent Dick Pease comments that a number of other Niagara County growers also have good facilities for worker housing. Unfortunately, it's the worst conditions over the Northeast that get most of the headlines!

"Raritan" – a new variety of strawberry developed at the Rutgers Agricultural Experiment Station, has had an "amazing" season, in the opinion of Carter R. Smith, one of its developers. Although 1968 was a poor year for strawberries, Dr. Smith reports that Raritan was excellent. It suffered less from wet weather than any other variety, and its season was long and productive.



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GREENHOUSE SWEET CORN

by Amos Kirby
New Jersey Editor

WANT to beat the normal harvesting season on sweet corn? Then plan to grow it in a "greenhouse" of plastic!

Two years ago, Ed Powell of Gloucester County planted two acres under plastic; this year he grew 40 acres. Other growers in Burlington and Gloucester counties copied the plan. For 1969, look for at least 500 acres to be grown in the South Jersey area under plastic.

The secret for efficiency and good yields is to change the distance between rows to 18 inches. At the same time, allow normal soil area in terms of square inches per stalk. After corn is planted, cover two 18-inch rows with a four-foot wide clear plastic. This allows six inches on each side to be covered with soil to hold plastic in place.

Corn planted on April 1 was kept under plastic for six weeks, by which time the stalks had attained a growth of 12 inches. Plastic was then removed to allow stalks to assume normal position; they straightened up in a few days.

Corn, especially in spring months, benefits from the heat held by plastic. Air temperature in April on one day tested was 49 degrees. Under the plastic, at a depth of two inches, the soil temperature was around 60 degrees.

Beating the normal marketing days of early July enabled these growers to hit the better-priced market late in June. Planting the mid-season varieties with larger ears brought them to maturity when the early and small-eared varieties were all that was available.

MORE GRAIN

The College of Agriculture reminds dairymen of the profit possibilities of "Challenge Feeding." Encourage the cows to eat more grain.

The program should start two weeks before calving. Feed at least one pound of grain per 100 pounds of bodyweight . . . up to 1.5 pounds for very high producers. Continue at this rate through calving and 3 days afterward, then step up grain rapidly. Keep on increasing, or challenging the cow as long as the extra milk more than pays for the extra grain.

WHOLE SOYBEANS

Thinking of feeding soybeans in the dairy menu? Some have raised the question of using the whole bean in the feed.

Here are some important recommendations:

1. Limit soybeans to 400 pounds per ton of mixed ration. Feeding more than this amount may cause scouring, going off feed and a decline in milk production.

2. Do not feed raw soybeans in a mixture containing urea. The raw beans contain an enzyme called urease which will break down the urea to ammonia before feeding and make the feed unpalatable.

3. When including whole soybeans in the grain mixture, prevent "gumming" by mixing them with other grains before coarse grinding, rolling or cracking.

4. Only grind and mix a 4-to-6 days' feed supply for the herd. This will prevent the fat in the soybeans from becoming rancid.

5. When incorporating soybeans in the ration, take two to three weeks to make the change gradually from the previous ration.

ALFALFA WEEVIL

Chemical sterilization of the alfalfa weevil looks promising for the future, reports Penn State University.

What looks promising is to raise male weevils in the laboratory; then treat them with a chemical known as apholate. The treated male weevils are released in the field, and the eggs laid by the female remain sterile.

FOREST CROPS

Nothing new in recommending the planting of Christmas trees as a source of additional farm income. But the use of mechanical equipment calls for a re-examination of the importance of planting some areas to Christmas

(Continued on next page)



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Personal Farm Experience

CAREFUL OF DEBT

My son and I have 85 head of stock on 275 acres. We milk 42 in stanchions. I have a rural mail route, so Edward does a good share of the farming.

We have been here for 26 years. When we bought the place the barn was old and had stanchions for 30 cows. In 1960 we built a new barn. Edward and I did about 75 percent of the work on it, and most of the lumber was cut on the farm.

I have always felt that doing better with what you have is more important than expanding.

The herd is on DHIC, and we follow feed recommendations closely. We produce around 700,000 lbs. of milk a year.

We are careful about debt. I have never bought a new tractor. We own four, which run well . . . but I couldn't sell the four for enough to buy one new one!

Recently we found a bargain and bought a used flail chopper, a sprayer for weeds (and the alfalfa weevil), and a hay rake.

The cows have been on pasture, but we plan to do some green-chopping and feed them in outdoor bunkers.

We will start with green oats, then Sudax, which we have sometimes grown for pasture. We may also chop some second-cutting alfalfa.

To save labor we have a gutter cleaner and silo unloader. We put up about 160 tons of silage, not enough for summer feeding, and I wish the silo was bigger. — *Floyd Putnam, R.D.1, Duanesburg, N.Y.*



Leonard Watson and a few clocks.

COWS AND CLOCKS

As a farm enterprise, beef cattle is an extensive type of agriculture. The labor per animal is much lower than on a dairy farm, and therefore more animals must be kept to make a satisfactory income.

However, there are ways to lower costs on any farm, a fact that impressed me when I stopped for a visit with Leonard Watson, who farms in partnership with his father, Lynn, who is employed off the farm. Leonard keeps around 100 Hereford cows on 640 acres near Belmont, New York, and sells feeder calves twice a year when they weigh close to 500 lbs. "That's the weight the buyer wants," he tells me.

The way he cuts costs is to do his own building and repair work. With a little help he constructed a pole-type tool shed 40×60 feet, a steel barn, a silo, and a shop. He also built three hay racks at a cost of approximately $50 each.

"I tear down tractors and replace worn parts, and do all the maintenance work on our cars. I have a well-equipped shop, with some used tools I bought at a big saving."

The home farm (elevation 1700 feet) has been in the Watson family for 150 years. Pastures have been plowed and seeded; the herd gets silage and some hay in the winter. Purchased grain consists of a fitting ration and some corn for the calves as sale time approaches.

"I like to have the calves dropped in March or April, but you can't get a perfect score. I sell some calves in November, and keep over the ones that are too small then . . . to be sold in April. Buyers come to the feeder calf sale at Pike from all over the state."

As we talked, a question had been building up in my mind. "Suppose you had to hire all your construction and repair work . . . could you stay in the black?"

"Absolutely not," was the quick reply.

Before I finish the story, I must tell you that Leonard has an interesting hobby; he collects and repairs clocks. I wouldn't be surprised if he could get a job that pays better than raising feeder calves. However, I'm very sure he would have a lot less fun! — HLC

HIRED MEN STAY

Early in 1961, Rodney Plaisted of Troupsburg, New York, was milking 100 cows in a stanchion barn.

"Before that," said Mr. Plaisted, "I was about ready to sell out. Then my son-in-law Frank Symonds decided to come with me, so we set up a partnership, built an addition on the barn, and put in free stalls for 150 cows. Right now we are milking 120 plus dry cows. We didn't buy cows; we raised our own!"

"How much help do you need to run the farm?" I asked.

"We have three hired men, all married," he replied. "One has been with me for twelve years, one six, and one five."

"Most farmers tell me they can't get and keep hired men, and can't afford to pay them anyway," I commented. "How do you do it?"

"It's no problem," he replied, but by asking numerous questions I think I found some answers. I didn't ask about wages, but obviously they are at or above the going rate.

Each man's family lives in a house with modern conveniences;

(Continued on next page)

each man gets time off during one weekend a month (Saturday and Sunday) plus one Sunday; and each family is supplied with milk.

"What about vacations?" was my next question.

"When we aren't too busy a man can take two or three days off. We don't specify the number of days a year, but the men haven't abused the privilege. Neither do we check up on the amount of milk they use, but it never has been excessive."

There are 1750 acres in the farm, but the Southern Tier of New York is rugged, and only about 700 acres are cultivated.

"We sell some timber, mostly maple," said Mr. Plaisted. "We used to cut it, but now we sell trees on the stump that are marked by a State Forester. Some years ago we set around 50,000 evergreens.

"We grow over 100 acres of corn. In 1960 we had no silos; now we have 5, and put up 1500 tons of silage . . . a little more every year. We tried a pit silo, but our soil is heavy and we didn't like it.

"For bedding, sawdust is brought from the same mill that buys the timber. There is a demand for sawdust from nearby dairymen during the winter, but it piles up during the summer, so we buy it then and stockpile it. We scrape the barn every day, and replace the sawdust in the free stalls once a month."

Before I left I asked this question, "Is this size of farm going to be the trend of the future?"

I liked the answer, which was, "There are good farms of all sizes!" — *Hugh Cosline*

FAMILY AFFAIR

Our dairy and grape farm is located in Sheridan, New York. We have a herd of 26 Holstein dairy cows and 10 young stock in a stanchion barn with automatic feeding.

We have two daughters . . . Darlene, 16 and Diane, 13 . . . who help with the farm chores. Diane feeds the cows silage and puts the milkers together. Darlene helps with the milking and feeds the calves and young stock. My wife, Helen, washes the milking machines and the milk room each day. Every part of this farm is a family affair.

We have 20 acres of corn which we put in the silos. I put on 500 to 600 pounds of fertilizer per acre and plow it down in the fall.

We also have 30 acres of trefoil and timothy hay. After the first cutting of hay, I apply 300 to 400 pounds of 0-20-20 per acre.

We have forty acres in all of Concords, Niagaras, and Seibel grapes. In the spring vines are tied, stapled, wire stretched, new posts where needed, suckered and sprayed 3 times during the summer. Then in the middle of September we harvest them, with the help of 6 pickers. — *Norman Deering, Sheridan, New York*

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For additional information on the new Surge self-adjusting milk valve, contact your Surge Dealer or write to Babson Bros. Co., 2100 S. York Rd., Oak Brook, Ill. 60521.

❖❖❖

Deere & Company has begun a program of putting price labels on John Deere tractors and other self-propelled machines.

The price tags will be similar to those which have been on automobiles in recent years. The printed-out tags will list what is included in the suggested base price, separate suggested prices of the various options included on the machine, and serial number identification.



Food For The Spirit

by Robert Clingan

BACK TO THE BEGINNINGS

We never associate the Pilgrims' Thanksgiving observance in New England with the earlier experience of the settlement of Jamestown. Yet this beginning in Virginia had characteristics held in common with those of the Pilgrim Fathers . . . a search for a new way of life in a new world.

This summer, when visiting Jamestown Festival Park in Virginia, I thought of the European culture, refinement, and comfort that those intrepid pioneers had exchanged for the crude life fashioned with their own hands in a strange and at times inhospitable land.

As we listened to the tape-recorded account in the reconstructed replica of the first fort, we learned of the order of priority in the first buildings constructed. After the earthworks and stockade fences were erected, three buildings had to be built before the first homes. These were: the commissary where tools and supplies were stored, the barracks for military equipment and readiness, and the church.

The colonists placed a high priority on economic well-being and progress, defense and order, and the spiritual values related to the beginnings of a self-determining form of government. The house of worship was also a place of discussion where the government of the colony found its direction.

The primary experiences of our lives . . . our privations and comforts, our successes and failures, our victories and defeats, our high hopes and bitter disappointments . . . are all to be lived out in vivid awareness of a "power not ourselves" that shapes the life of man and makes his open-ended potentials possible. This "presence" we recognize when we assemble for any form of public worship. This is the essential meaning of the first Thanksgiving in New England, as well as the building of a house of worship before building a home in the fort of Jamestown.

Thanksgiving for the Pilgrim Fathers was a feast, but a feast that celebrated not the achievement of their hands, the strength of those who survived, or their wisdom that matched their problems. Rather it was a sincere expression of gratitude to God who is in the words of the scripture, "the giver of every good and perfect gift," the Creator of the natural world who makes possible "the bounty of the harvest." It is God who gives us the strength and the wisdom to achieve the level of life that we enjoy.

Worship as a means of celebrating the gifts of life and the reality of God is not enough. Like



the early founders of our nation, we must look to God for new directions, and make our basic decisions in terms of His will and our unfolding knowledge of His purpose.

If we can observe Thanksgiving with such depth of understanding and commitment, we will have returned to the roots of our beginning. Those spiritual resources will give us what we need to meet the issues we face. Succeeding generations will honor our wisdom and renew their faith because of the faith and courage born of our beginnings.

The Song of the Lazy Farmer



The burst of winter at our place puts bigger smiles upon my face; with snow and cold this month is when the pancake season starts again. In spring and summer and in fall, the griddle's hardly used at all, because pancakes, Mirandy feels, are only good for winter meals. From April 'til Thanksgiving's o'er, I argue that she should make more, but women don't change once they're set, so eggs are all I ever get until November is unwound and there is snow upon the ground. Til then Mirandy seems to be afraid hotcakes will founder me.

That notion is such poppycock that it is really quite a shock to hear my own wife using it, she sounds like she ain't got much wit. Why, ev'rybody knows there ain't a single justified complaint that can be made about pancakes, the finest dish a woman makes. When batter's mixed up properly, and my wife's always is, by gee, you needn't have a bit of fear no matter what the time of year; however big the stack you eat, they'll give you pep that's hard to beat. Mirandy knows that, too, I'm sure, and I doubt that her motive's pure; it ain't my health that worries her, it's making her work easier.





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DRYING CORN

THERE are three basic methods of drying corn . . . in-storage layer drying, batch drying, and continuous flow drying.

With the in-storage layer drying method, grain is dried in layers in the storage structure. Each layer is partially dried before the next is added. The drying rate determines how fast the structure can be filled. Drying rates vary with moisture content of the grain, drying unit capacity and operating procedures.

There are two types of batch dryers . . . column batch, and batch-in-bin. One dries grain in columns 12 to 24 inches thick and the other dries grain in a 2-to-4 foot layer over a perforated floor. With both batch drying methods, the grain must be removed when dry and put in a storage structure, involving more handling of the grain.

The continuous flow method is just what the name implies . . . grain flows continuously through the dryer. An adjustable grain flow device on the output regulates the rate of flow according to the amount of moisture removal required.

Some Guidelines

Experts say that dryer capacity should be capable of handling all your corn if it was harvested in 20 working days.

A 2-row field sheller or combine will average about 1200-1500 bushels per 10-hour day in 100-bushel per acre corn. If the dryer is to be operated only in the daytime, it must average 120-150 bushels per hour for 10 hours. With 16 hours of operation, a capacity of 75-95 bushels per hour is enough.

One way of estimating drying capacity of heated air dryers is to use the rule that it takes 2,000 British thermal units (BTU) of heat to remove one pound of water at recommended operating temperatures.

When drying shelled corn from 26 percent moisture to 12 percent, 10.6 pounds of water per bushel must be removed. Then, to dry one bushel per hour requires 21,200 BTU per hour.

The required fan capacity in cubic feet per minute (CFM) depends on the desired temperature rise. With a 100 degree temperature increase the fan capacity should be approximately 30,000 CFM. Fan capacity in CFM is roughly determined by dividing the BTU per hour by the degrees of temperature rise.

If the drying rate is 140 bushels per hour, it takes 2.85 hours to dry a 400-bushel batch. However, allow about an extra hour for loading time, cooling time and unloading time. This cuts the overall average drying rate to only a little over 100 bushels per hour.

Operating costs usually average about 4 or 5 cents per bushel, regardless of the drying method. This includes fuel power, labor and repair costs.

Variation

There is usually much more variation in investment cost than operating cost. Investment cost can range from $1,000 for in-storage layer drying to $10,000 for the continuous flow method.

Engineers advise that an investment in drying equipment of 58 cents per bushel is about the maximum. If you invest more than this, you will probably be exceeding custom drying rates. A farmer who dries 10,000 bushel per year could invest up to $5,800.

Precise Point

Farmers who sell their grain on the cash market are concerned about reaching a precise moisture content. Batch-type and continuous flow dryers meet this requirement best.

Deep layer drying in storage bins should be adequate for grain to be fed on the farm. The system is slow, and there is some overdrying and uneven drying. With this system, only the extra cost of the perforated floor and the drying unit, conveyors, distributors and stirrer should be considered as drying investment costs since the bin adds to the storage capacity of the farm.

In years when corn moisture is exceptionally high, the drying capacity of the in-storage layer drying method can be increased by operating it as a batch-in-bin system.



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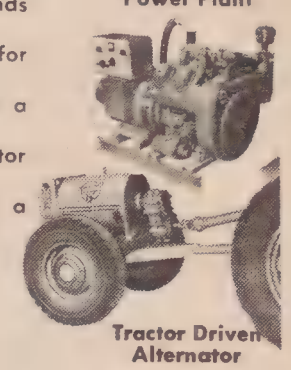
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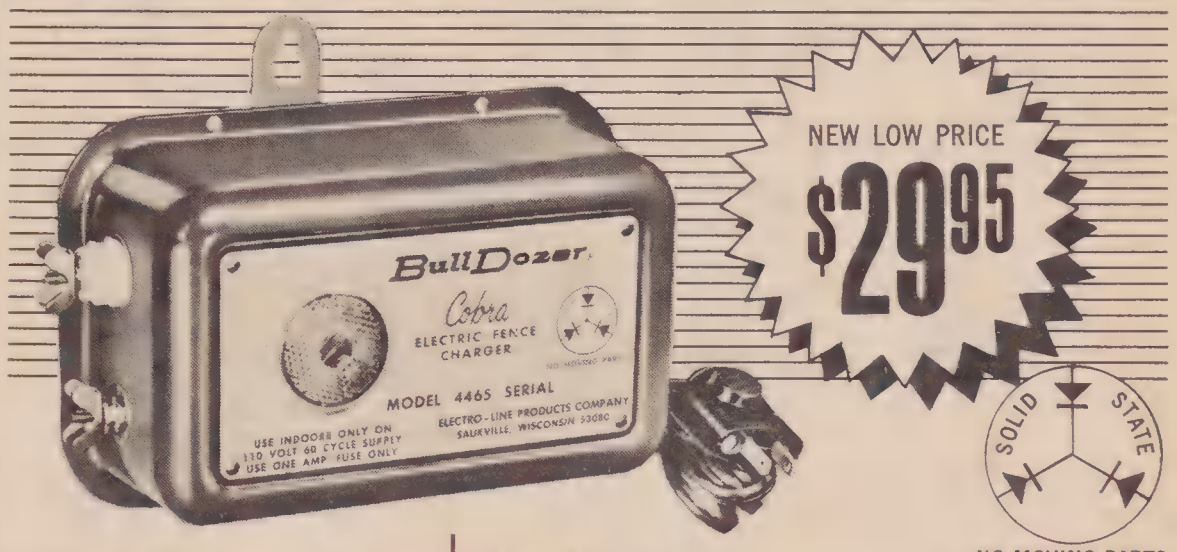


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Why all this good neighbor bit? Simply because I'm convinced that if we each one do our part we can do more to offset the wave of zoning ordinances, health department memos, etc. that face all of agriculture than can be accomplished by any amount of effort at hearings and legal battles after folks have once become aroused, united, and adamant about a farm situation. Just as in anything else, one bad farm situation or bad farmer attitude tends to create additional problems for all of us.

There is, of course, another side to the coin. Many folks move out to the country to get away from city odors. Fair enough. They should in all fairness accept the country as it is . . . wonderful but not perfect. It, too, may have odors at times. By and large most folks are open-minded and fair about this. The few who are not can really hurt.

FLAIL CHOPPER

For years we used to cut roadways around our corn fields by hand. This was too time-consuming so we eventually took to running over a couple of rows and then tried to turn around and pick up the down corn with the chopper. We never got near all of it; the corn always fed in wrong end to and sooner or later (usually sooner) plugged in the throat of the machine.

This made chopping these rows a slow and dangerous business. We never did learn to pull the stalks from under gathering chains while the machine was shut off and we never figured anyone in his right mind should be working around the chains and feed rolls while they were running.

This year we have tried picking up these rows of down corn by running against the stalks with a flail chopper. Sure, it does a lousy job – shredding and tearing rather than chopping. However, most of the corn is salvaged and can be fed in the outside bunks with little waste. For us, it sure beats the slow, dangerous job of trying to pick up and feed these down rows through the conventional chopper.

CHANGING THE GUARD

At annual meeting time for the various farm organizations and farm co-operatives, the members will choose some new leadership. The opportunity to train and develop capable new leadership is one of the real challenges of these organizations. Without some change at the top from time to time, the leadership tends to get stagnant and self-satisfied, unresponsive to the members, and generally not as dynamic as necessary.

The other side of the coin should also be examined. All too often people step down from the offices after having acquired invaluable experience and knowledge. Few outfits have any provision for using these talents once the man relinquishes his directorship or other office. Possibly a few of these people should best be turned out to grass and forgotten, but the majority could make further valuable contributions if they were asked.

It bothers me to see a man step down and really step out, because all too often he is hardly heard from again. Sure, he may not want to give as much time to the group as formerly, but he can and should be asked to help more than he likely will be.

They could, as examples, work on long-range planning committees, as special consultants to the president or the executive committee, as public relations people in some special situations. Their talents should be used, not lost.

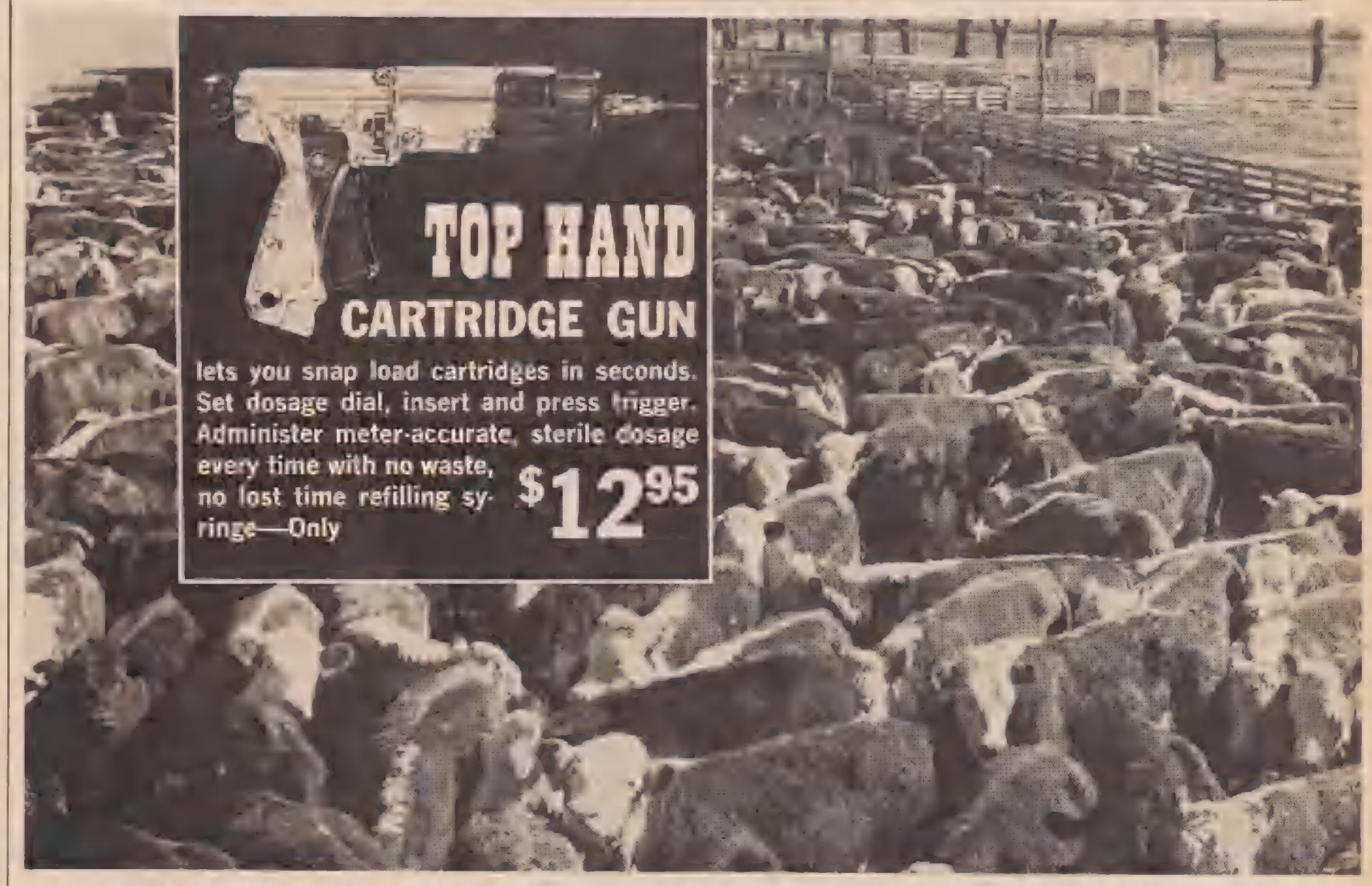
Lastly, how seldom do our leaders really get the thanks and recognition due them at the expiration of their term in office! They have given of their time, taken the criticism, and should at least once be publicly thanked.

LEAVES

In spite of a real wet summer our corn did not make the growth it did a year ago. For lack of a better explanation we will say there were too few hot days and too many cool nights. However, the tonnage of silage was better than the height would have suggested.

First, the stand was very thick and uniform. Secondly, the leaves were the thickest and broadest we can remember. In 36-inch rows, the leaves from one row reached to the adjoining rows. Possibly this was encouraged by the thick stand in the row . . . the leaves had to go into the row to get light. At any rate, from about 30 inches above the ground up nearly to the top of the plants, the leaves formed an interlocking tangle clear across the rows.

These long, broad, numerous leaves . . . along with good ears . . . spelled high tonnage with real high quality. Leaves beat stalk for feed any old time!



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they arrive at camp. Many schools for the deaf do not teach sign language, but train students to read lips and develop their vocal cords for speech.

Began Sharing

The New York State Grange Path of Life for the Deaf project began some years ago when Mrs. Kark and her husband began sharing their home with foster children. Their biggest challenge was a 16-year-old deaf girl, who met all attempts at understanding and kindness with mistrustful silence. Not until Mrs. Kark took pains to learn the deaf sign language did the girl become a part of the family's social life.

So Mrs. Kark began to provide social events for deaf teenagers in her home, in her Grange, then in all the Granges in Broome County. Hearing teens were encouraged to take part and learn the sign language. Soon hundreds of deaf teenagers were learning for the first time what it is like to be just "one of the crowd."

STREAM MAP

Ideal for sportsmen, the Stream Map of Pennsylvania is the most detailed of its type ever printed for the Keystone State. It shows over 3000 each of streams, towns, and elevations above sea level. Names of major mountains and valleys are included, as are locations of forest fire control towers operated by the Commonwealth. Locations of swamps, lakes, dams, and reservoirs are shown.

The map is about three feet high and five feet wide. It can be purchased for $1 a copy plus 6 cents sales tax, by writing to Maps, Box 6000, University Park, Pa. 16802.

NEW BARN

About half a mile from U.S.1, a new "space age" barn has risen on the horizon. Variously compared to "a birthday cake with a giant candle" or a rocket-launching platform, the Rutgers self-feeder dairy barn is the result of 20 years of research.

The designer is Professor Mark E. Singley, of the agricultural engineering department at the College of Agricultural and Environmental Science. It embodies three particular ideas: (1) allowing cows to feed themselves from a circular trough inside the barn; (2) providing free-stall housing for 34 cows; and (3) handling liquid manure in a circular gutter running between the stalls and the feeding platform. Sixty feet in diameter, the barn is dominated by a silo 18′ in diameter and 60′ feet high rising from the middle. The silo can hold 360 tons of feed, or about a 7-months supply.

The State University engineers see the barn presently as a research facility. It eliminates the necessity of special machines for silage unloading, feeding, and gutter cleaning, and should save a good deal of human labor as well.

SAFETY CONTEST

Prizes of one $50 savings bond and two $25 bonds will be awarded the top three entries in a Safety Scrapbook Contest by the New York State Rural Safety Council.

Open to any New York State boy or girl between the ages of 10 and 19, the contest seeks to promote all aspects of rural safety. Entries must be received no later than December 1 at Room 322 Riley-Robb Hall, Cornell University, Ithaca, New York 14850.

For contest details, contact 4-H agents, vo-ag instructors, Grange youth leaders, home economics teachers, or the address given above.

GARDEN BULLETIN

Most colleges of agriculture in the Northeast have gardening bulletins available . . . usually free in single-copy quantity to residents of the state.

New York Staters can send to: Mailing Room, Bldg. 7 Research Park, Cornell University, Ithaca, New York 14850 for a free copy of the 40-page bulletin E1191, entitled "The Home Vegetable Garden." Out-of-staters can also get it if they want, but the charge is 20 cents per copy.



Photo: Grover Brinkman

Looks like a sitting duck, doesn't it . . . but it's really a sweet potato! Many an oddity appears in the vegetable world, and AA readers often write to tell us about one.

"I Would Highly Recommend BOU-MATIC MILKERS To Anyone Developing A Good Herd!"

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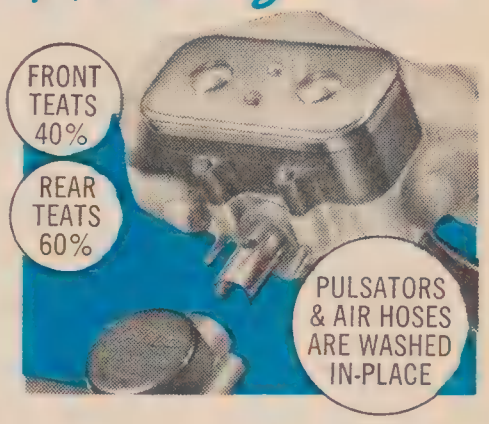
"I have used Bou-Matic milkers for the past four years, and appreciate more and more what a good milker will do for the udder health of this purebred herd. I have used other makes of milkers, but nothing compares to the uniform quarters and good production I am presently experiencing.

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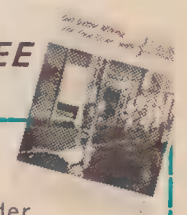
Raymond Goeringer

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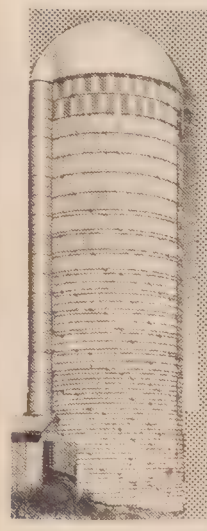
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Dollar Guide

For The Northeast Farmer

NEW YORK-NEW ENGLAND Cooperative Coordinating Committee has helped put millions of dollars in northeastern dairymen's pockets by the united front of 19 cooperatives testifying through one representative at milk price hearings. It's one of six regional combinations of dairy cooperatives over the nation.

SPICE (State Poultry Industry Coordinated Effort) voted at its last annual meeting to push for adoption by producers of New York State egg marketing order. Order would assess not more than one-third cent per dozen shell eggs ... to be used for promotion and product development, as well as a poultry industry informational service. Public hearings will precede vote by producers.

CLASS I BASE PLAN will not be coming up for vote in Northeast in foreseeable future. Dairy cooperative leaders indicate no plans to petition for consideration of the Plan, saying that co-op membership is overwhelmingly opposed at the present time.

CHEESE IMPORTS have been limited by President Johnson. Dairy surpluses of foreign countries were being unloaded on U. S. markets. Presidential order also requires that cheese importers be licensed beginning January, 1969.

ANNUAL GRASSES ARE ... and will be next year ... worst weed threat in northeastern corn, says Cornell weed specialist William Duke. Witchgrass is the worst of a bad lot in New York State, and crabgrass is close behind. Combinations of herbicides are recommended (atrazine plus one of such materials as Lorox, Lasso, or Ramrod.) Atrazine rates in such combinations are low enough to prevent residue injury to susceptible crops the following year. These combinations won't handle quackgrass, though ... for quack control, split applications of atrazine are recommended.

MACHINERY STORAGE should involve more than space in a field behind the barn. Engines should have new oil ... and no fuel in tanks or fuel lines ... as well as drained cooling systems and oil squirted behind spark plugs. Remove battery for separate storage.

On other equipment, loosen belts, cover rustable surfaces with grease, completely lubricate, retract hydraulic cylinder, and jack up to take weight off tires.

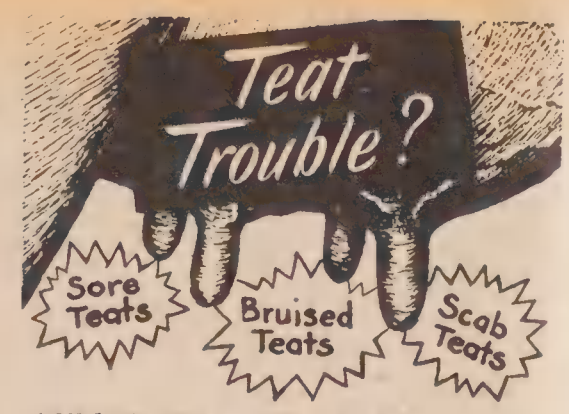
FALL APPLICATION of phosphorous and potash has some advantages...fall fertilizer price discounts, firmer soil for heavy spreading equipment, getting a jump on spring work, and having to handle only small amounts of starter fertilizer in the rush of planting. On meadows, fall application can "winterize" legumes for less winterkill, and get 'em off to early start next spring.

Fall plowdown, on suitable soils, gives an additional jump on next year's crop season.

ATTEMPTED MOVE to persuade chains to boycott California grapes has had some success. Back of this is attempt to unionize grape pickers; there is no strike against grape growers! Remember that all farmers are dangerously vulnerable to strikes by unions just before harvest time.

IN PLANNING AHEAD don't overlook fact that your federal taxes (income and social security) will be noticeably higher for 1968! Also by planning ahead, and buying or deferring buying equipment and supplies, you may legitimately make reduction in taxes.

"FREDDIE COMPUTOR" is the name of the Farm Bureau's new electronic bookkeeping system for farm records. For more information on this farm management tool, contact New York Farm Bureau, Farm Records, Route 9W, Glenmont, N.Y. 12077.

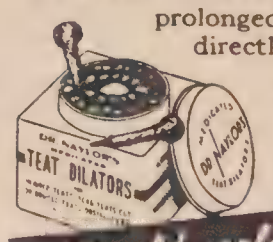


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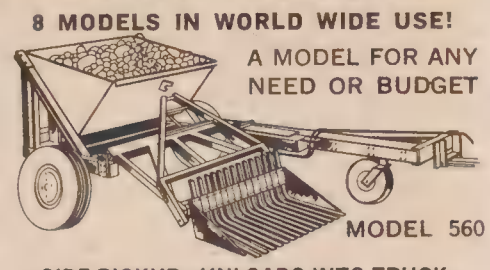
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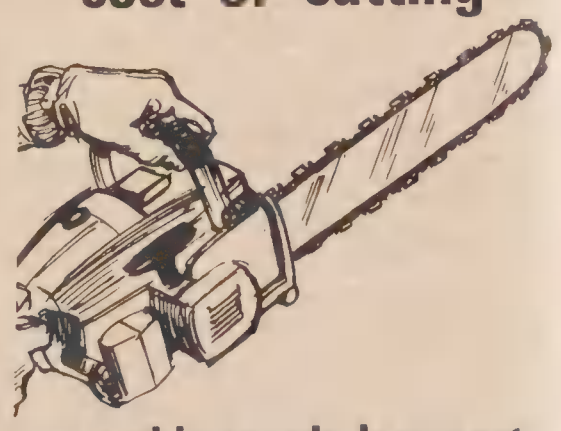
Blueberry Plants

WHOLESALE & RETAIL

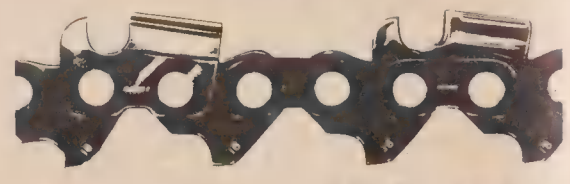
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Nov. 2 - New York Ayrshire Club Annual Meeting, Syracuse, N.Y.

Nov. 5 - Election Day.

Nov. 9-16 - Twelfth Annual Pennsylvania Livestock Exposition, Farm Show Building, Harrisburg, Pa.

Nov. 10-13 - New York Farm Bureau Annual Meeting, Syracuse, N.Y.

Nov. 10-13 - International Apple Association 74th Annual Convention, Ben Franklin Hotel, Philadelphia, Pa.

Nov. 10-14 - National Association Extension 4-H Agents Annual Meeting, Michigan.

Nov. 12-14 - Thirtieth Annual New York State Insecticide and Fungicide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

Nov. 13-14 - Connecticut Farm Bureau Annual Meeting, Hotel American, Hartford, Conn.

Nov. 14 - Regional 4-H Horse Judging Contest, Pennsylvania Livestock Exposition, Harrisburg, Pa.

Nov. 14-15 - New Jersey Farm Bureau's 50th Anniversary Convention, Colony Resort Motel, Atlantic City, N.J.

Nov. 17-23 - Asparagus Week.

Nov. 22-23 - New York State Campground Operators' Conference, Cornell University, Ithaca, N.Y.

Nov. 22-28 - National Farm-City Week.

Dec. 1-3 - Cornell Seed School, Ithaca, N.Y.

Dec. 1-5 - National 4-H Club Congress, Chicago, Ill.

Dec. 3 - Nursery-Landscape Conference, Rutgers University, New Brunswick, N.J.

Dec. 3-6 - Sheepmen's Short Course, Cornell University, Ithaca, N.Y.

Dec. 4 - Connecticut Pomological Society Annual Meeting, De Pasquales Restaurant, Newington, Conn.

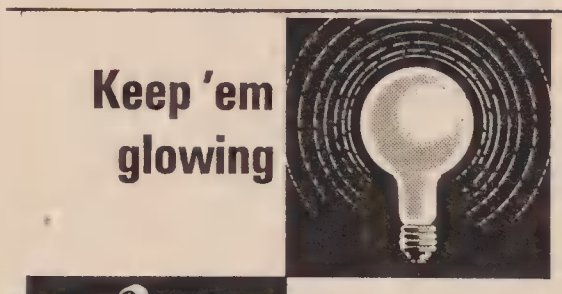
Dec. 8-12 - 34th Annual Convention of National Junior Horticultural Association, Atlanta, Georgia.

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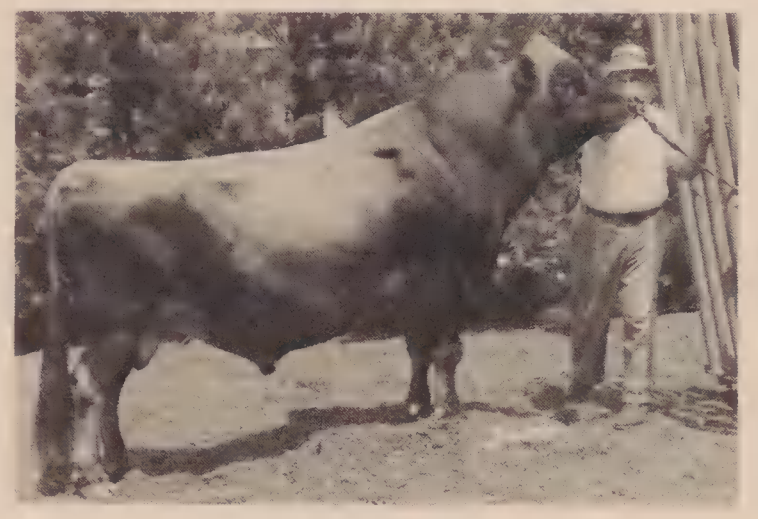
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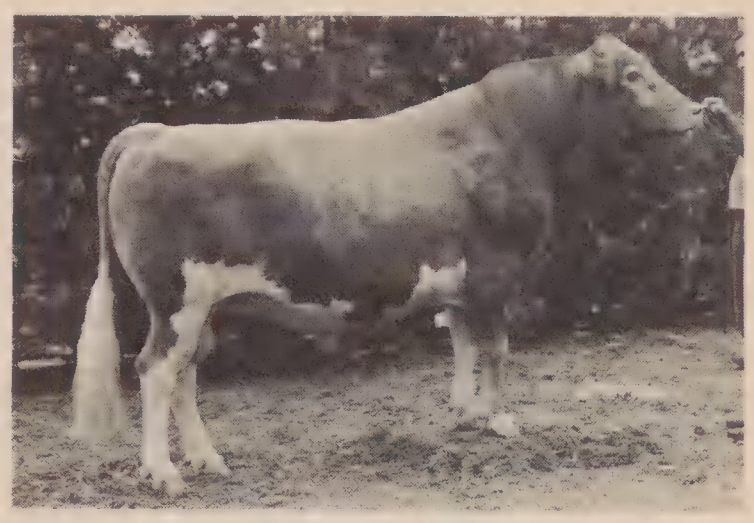
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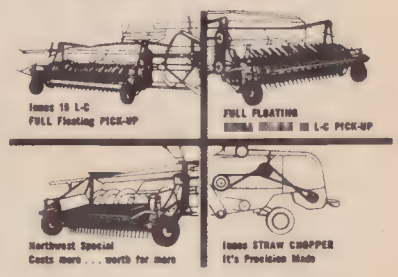
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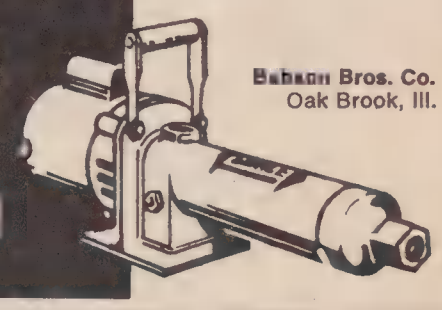
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Thanksgiving SPECIALS



by Alberta Shackelton

Thanksgiving dinner always features some traditional food — turkey, cranberries or pumpkin, but it's the extra touches that make the meal truly festive fare. A beautiful centerpiece, possibly an edible one of seasonal fruits and a variety of nuts, sets the stage for what is to follow, and then from first to last course, make it a meal to be remembered!

First Courses — Tangy fruit and seafood cocktail, oyster stew, seafood bisque, hot spiced tomato-clam juice, fruit 'n juice cocktail (provide toothpicks for spearing fruit), sherbet-topped fruit cup or juice, and first-course salads make good starters for the meal. Some of these may be served in the living room if you desire.

FRUITED SEAFOOD COCKTAIL
(Recipe given for 1 serving)

- 4 cooked shrimp or ¼ cup crabmeat chunks
- 3 or 4 grapefruit sections
- 1 or 2 small lettuce leaves
- 1 or 2 tablespoons cocktail sauce

Line sherbet glasses with lettuce leaves and arrange on top alternating sections of fruit and shrimp. If using crabmeat, place it in center with fruit sections radiating outward. Cover with cocktail sauce.

To make **Cocktail Sauce:** Combine ½ cup catsup, ¼ cup chili sauce, 3 tablespoons lemon juice, ½ to 1 tablespoon prepared horseradish, dash salt, 2 tablespoons finely diced celery, and dash onion salt if desired.

SPICED TOMATO JUICE AVOCADO

- 1 can undiluted condensed chicken broth
- 1 soup can tomato juice or vegetable juice cocktail
- ½ stick cinnamon
- 4 whole cloves
- 2 slices lemon, halved
- Dash celery salt
- Avocado slices

Combine all ingredients except avocado slices and simmer uncovered 5 minutes. Remove lemon slices. Serve hot in bouillon cups with floating slices of avocado. Serves 4.

In place of avocado slices, you may wish to top each serving with a dollop of sour cream sprinkled with finely chopped parsley or chives.

Salads — You may wish to substitute an attractive **Relish Tray** for a salad. Arrange attractively on a tray, an assortment of radish roses, celery curls or pieces of stuffed celery, carrot curls, pickled peaches, apricots, pears or crabapples, and your best pickles.

To make your first course double as a salad, try a **Citrus Salad Plate.** Arrange crisp curly-type greens on individual salad plates and top with alternating slices of orange, grapefruit, canned pineapple slices halved, and avocado slices with cherry in center. Pass a French dressing made with citrus juices in place of usual vinegar or a Poppy Seed or Celery Seed Dressing.

You may use the following Cranberry Relish as a turkey go-along, served in lettuce or scooped-out orange cups as a garnish for the turkey, or in a molded salad.

CRANBERRY RELISH

- 4 cups cranberries (1 pound)
- 2 oranges, quartered and seeded, but not peeled
- 2 apples, quartered and seeded, but not peeled
- 2 cups sugar

Put cranberries, oranges and apples through food chopper, using a medium grind. Combine with sugar and mix well. Make up several batches to store in the refrigerator in covered jars or in the freezer. Coarsely chopped nuts may be added to this basic mixture if desired.

MOLDED CRANBERRY SALAD

- 1 package cherry flavored gelatine
- 1½ cups liquid (cider, part ginger ale, cranberry juice, other fruit juices)
- 1 cup drained cranberry relish
- 1 cup any of the following or a combination: (halved seeded green or Tokay grapes, finelv cut celery, drained cut-up pineapple, seedless raisins)
- ½ cup slivered almonds or coarsely chopped walnuts or pecans

Make gelatine as directed on package, but use only 1½ cups liquid. When slightly thickened, fold in cranberry relish and extra ingredients. Place in a ring mold and chill until firm; unmold on crisp salad greens.

Or place in individual molds and unmold each on a slice of orange or a pineapple slice. If almonds are used, place a whole blanched almond in each individual mold before adding salad mixture.



Make individual cranberry relish salads the day before Thanksgiving. Serve on orange slices, and they're as pretty on your table as they are good to eat.

Desserts — Pumpkin is featured in either the Chiffon Tarts or Frozen Pie. The recipe for Date Pudding was given me by my good Ithaca, New York friend, Mrs. B. P. Young. It has been a favorite Holiday dessert in her family for many years.

PUMPKIN CHIFFON TARTS

- 3 egg yolks
- ¾ cup brown sugar
- 1½ cups cooked pumpkin
- ½ cup milk
- ½ teaspoon salt
- 1 teaspoon cinnamon
- ½ teaspoon nutmeg
- 1 tablespoon unflavored gelatine softened in
- ¼ cup cold water
- 3 egg whites
- ¼ cup sugar
- 7 or 8 baked tart shells

Combine egg yolks, brown sugar, pumpkin, milk, spices and salt; cook over medium heat until thick, stirring constantly. Stir in softened gelatine and chill until partly set. Beat egg whites until stiff and gradually beat in sugar until stiff, soft peaks are formed. Fold into pumpkin mixture.

Pour into tart shells and chill until set (filling may be placed in 9-inch baked pie shell or crumb crust if you prefer). At serving time, garnish with whipped cream or whipped dessert topping sprinkled with bits of candied ginger, shredded coconut, or toasted pecans.

FROZEN PUMPKIN PIE

- 1 cup cooked pumpkin
- ½ cup brown sugar, firmly packed
- Dash salt
- 1 teaspoon cinnamon
- ⅛ teaspoon cloves
- ¼ teaspoon nutmeg
- 1 quart vanilla ice cream, softened
- 1 baked 9-inch crust, regular pastry or cracker

Combine pumpkin, sugar, salt, spices, and ice cream and blend well. Spread in chilled pie shell and freeze until firm. Let stand about 15 minutes at room temperature before cutting. Garnish with whipped cream, chopped nutmeats, chopped candied orange peel or ginger.

NOLA'S HOLIDAY DATE PUDDING

- 1 cup sugar
- ¼ cup flour
- 1 teaspoon baking powder
- 1 teaspoon cinnamon
- Pinch salt
- 3 egg yolks, well beaten
- 3 tablespoons milk
- ¼ cup cracker crumbs
- 1 cup dates, quartered
- 1 cup coarsely chopped nuts
- 3 egg whites, stiffly beaten

Combine sugar, flour, baking powder, salt, and cinnamon; stir in beaten egg yolks. Stir in the milk, then the cracker crumbs, dates and nuts. Beat egg whites until stiff soft peaks form and fold in.

Place in greased 2-quart casserole or baking pan; set in pan of water and bake in moderate oven (350°) about one hour, until set but still moist. Serve warm with whipped cream or slightly softened ice cream. Serves 6 to 8.



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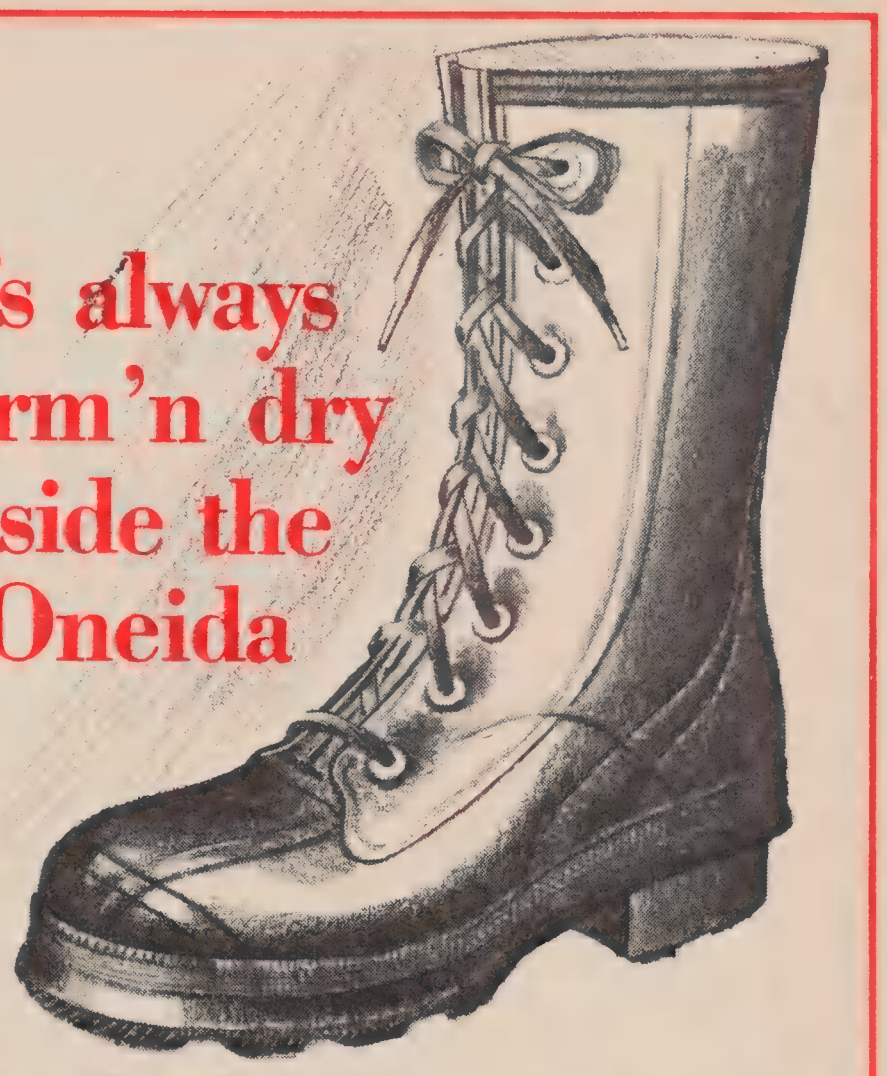
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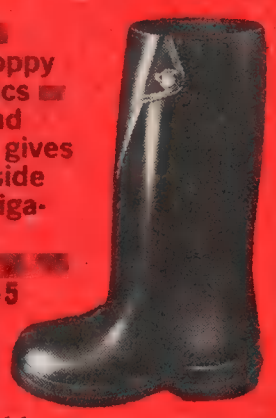
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PRUNING EVERGREENS

by Nenetzin White

Generally speaking, most evergreens require a bit more pruning than other plants because it is often difficult to find exactly the right size plant to fill your needs.

Starting with naturally large growing plants, we have the pines, spruces, firs, larches, and hemlocks. All but a few specialized dwarf varieties of these should be planted as background or specimen plants only, and allowed to attain their natural height with no man-made alterations. They are very difficult to restrict and frequently become distorted and ugly when you attempt to restrain them. In most instances, I like to see the low, sweeping and graceful branches on the ground, but they may be pruned as you do shade trees (see article in last month's issue of **American Agriculturist).**

Evergreens used for foundation plantings should be somewhat dwarf to very dwarf and also slow growing. Try to select a plant that will roughly fit your scale. For example, Spreading Japanese Yew (Taxus cuspidata) will eventually become a plant many feet tall by six or more feet in width, and while it can be restricted easily, in many instances it probably would be more advisable to plant one of the smaller dwarf varieties. Dwarf Japanese Yews (Taxus cuspidata nana, densiforma, brevifolia, and others) will remain much smaller, so know what you are buying.

All Taxus varieties may be pruned more severely than many other evergreens because they have adventitious buds, and when severely cut back to bare branches, they will usually throw new buds. This is not an overnight process, however, so be content to wait. Early spring (April) is the best time for this drastic pruning. Be sure the plants then have plenty of water and an organic fertilizer.

Taxus cuspidata and its varieties can be pruned informally by "feather cutting," and one such pruning a year should suffice. Hedge shapes or severe formal shapes usually require a couple straight prunings a year.

There are other shapes of Taxus — Hicks (columnar), Intermedia (intermediate), and Capatita (inverted cone). Whenever branches protrude and become unsightly or out of proportion to the rest of the plant, simply snip them off. Most of your other foundation evergreens (junipers, arborvitae, rhododendrons, etc.) can be treated in the same manner — touch up and feather pruning for informality or all-over clipping for formality.

Many times junipers are used for bank plantings in hot, dry situations. Assuredly, you want these to form a nice dense mat, but occasionally remove a few of the largest branches, so the plants can renew themselves and so there is a little air circulation.

Rhododendrons, azaleas, and other broad-leaved plants will be helped by not allowing seed pods to form. Clip off the flowers (pulling won't do) as soon as they fade. Unless the old flower heads are removed, rhododendrons and azaleas tend to be in best flower only on alternate years. If it is necessary to prune these plants severely, remove a branch or two at ground level (preferably in the center) and cut back others to form a shapely plant.

While it is usual to prune evergreens during the growing season so the plants will not look harsh for very long, I like to be sure there are a few plants of Taxus, juniper, etc., left so I have some nice foliage for my holiday decorations. Just before the Thanksgiving or Christmas Holidays is an excellent time to remove some of the more rampant growth from the past season.

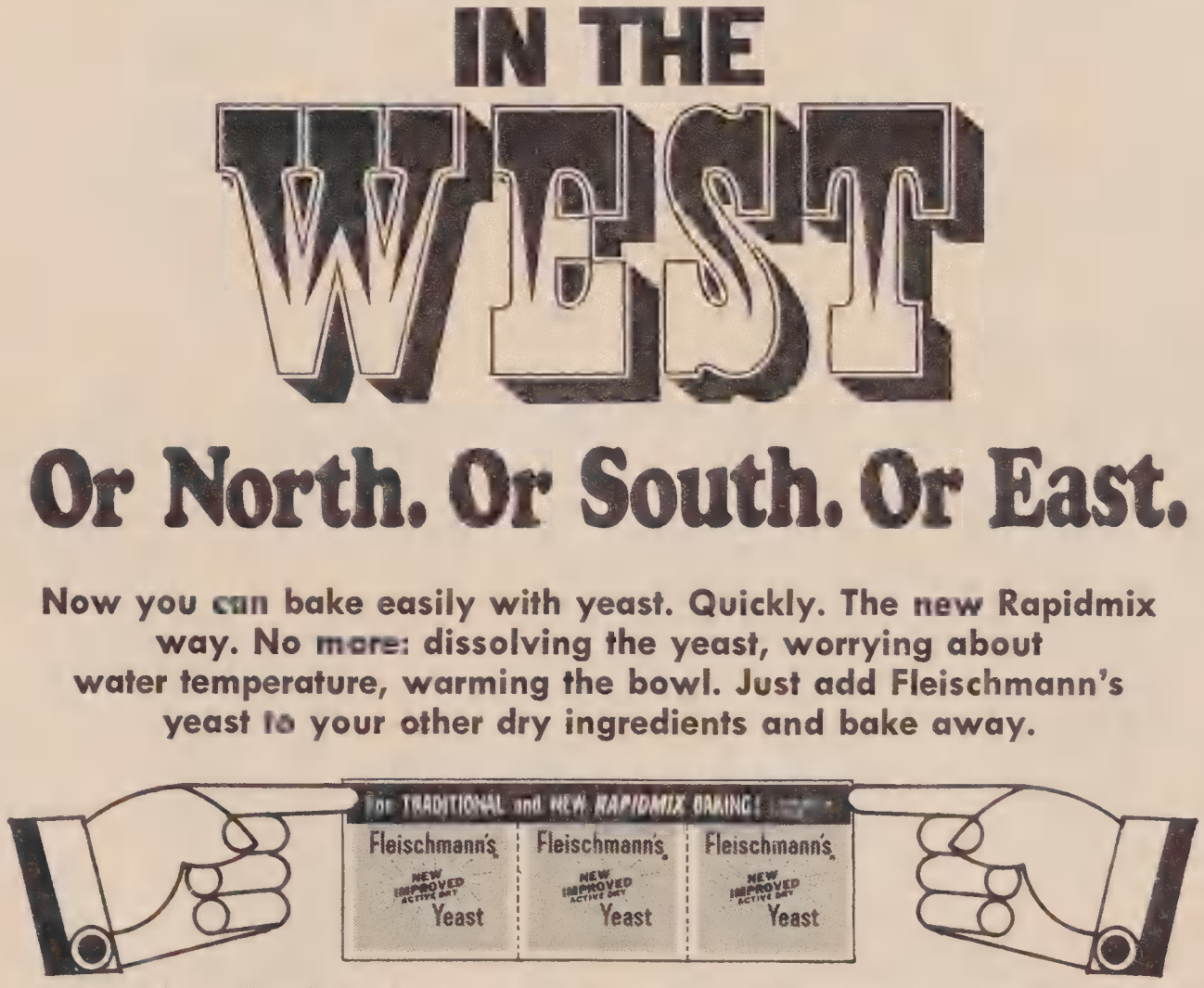
One more tip on the larger growing pines or spruces, you frequently find what the nurseryman calls a "double leader" (or even several upright stems) on the uppermost part of the tree. This may be due to tip borers in the case of White Pine and some of the spruces, but more frequently it is caused by a bird attempting to light on the new tip of the tree before it is rigid enough to support the bird. This destroys the new leader, and several shoots often develop to replace it.

Select the best, strongest, and most upright of the shoots and remove the rest. In the nursery, we often use a short 10 to 12-inch, small bamboo stake, which we tie with an old soft cloth to the new leader and to the main stem to keep it upright. Of course, this should be removed after its mission has been accomplished, usually within a year.

Again, call upon your local nurseryman, your Extension Agent, or drop me a line if you have a specific problem.

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Buy Northerners at any of the following authorized Servus dealers:

CONNECTICUT
Broad Brook: Reliance Company
Norwich: Surplus Center
MAINE
Kittery: Webbers
Portland: Quoddy Products
MASSACHUSETTS
Boston: Hershberg Shoe
Greenfield: Clarks Sport
Holyoke: C. E. Walker Company
Indian Orchard: Stuart's
Waltham: Scotts Surplus
NEW JERSEY
Atlantic City: M & H Sports Store
Audubon: Polly Brothers
George Stratton Sporting Goods
Beach Haven: Koseffs
Bridgeton: Felmey's Sport Shop
Burlington: Gregory's
Cherry Hill: Strawbridge & Clothier
Clark: Jack Ruddy Sport Center
Collingswood: Al's Mens & Boys Store
East Rutherford: Pauls Sport & Hobby
East Hampton Township: Gregory's
Fairlawn: Rockaway Sales
Franklin: Rockaway Sales
Glassboro: Delsea Army & Navy
Hackettstown: Rockaway Sales
Irvington: Bill's Army & Navy
Lambertville: Joseph Finkle & Son
Ledgewood: Outdoorsman
Long Valley: Fred M. March
Manasquan: D & H Sport Shop
Morristown: Max's Sport Shop
Mt. Holly: Gregory's
Newton: Murray's Department Store
Rockaway Sales
Plainfield: Dreiers Sporting Goods
Pleasantville: The Hub
Point Pleasant: Bills Work Clothing
Sommerville: Davids-Hillsboro
Marty Orshan
Pompton Lakes: Army and Navy Store
Rahway: Charlie Brenner's Sport Shop
Rockaway: Rockaway Sales
Trenton: Beaver Sporting Goods
Watchung: Dreiers Sporting Goods
White House Station:
Davids Mens & Boys Wear
Woodbridge: Two Guys
Yardville: Harrys Army & Navy Store
NEW YORK
Alexandria Bay: Pearl Department Store
Andover: Vars Mens Wear
Arcade: Farm Co-op
Howlett's
Auburn: Byrns Sporting Goods
The Liberty Store
AuSable Forks: National Army Store
Avoca: Robin W. Adair
Ballston Spa: Pearls Department Store
Bath: Harold's Army-Navy
Workingman Store
Beacon: Schuman's Army-Navy
Binghamton: Dick's Clothing
Bliss: Moden's
Bolivar: Fagouri's
Brockport: Workingman Store
Brooklyn: Triangle-Bay Ridge
Buffalo: Reliable Wholesalers
Bushnell's Basin: Naum Brothers
Camillus: Johnny Jo
Canton: Pearls Department Store
Chateaugay: Pearls Department Store
Clymer: Neckers Company
Corinth: Pearls Department Store
Corning: Harold's Army-Navy
Dannemora: Pearls Department Store
Depew: Dusty's Tackle & Bait
Downsville: Downsville Hardware
Dunkirk: Joes Sporting Goods
Plaza Sport Center
East Syracuse: Sack's Department Store
Eden: Laing's Mill
Edwards: Pearls Department Store
Ellenburg: Pearls Department Store
Elmira: Harold's Army-Navy
Fredonia: Shearers
Geneva: Super Army-Navy
Glen Falls: Pearls Department Store
Warehouse Outlet
Greenlawn: Greenlawn Sport Shop
Hamden: Aitkens Variety
Herman: Pearls Department Store
Homer: Homer Men & Boys
Hudson: Steiners Sport Center
Ithaca: Harold's Army-Navy
Jamestown: Carnahans
Collins Sport
Johnstown: David D. Dimezza
Pearls Department Store
Lake Placid: United Army
Le Roy: Pat's
New York: Bob Darber's Tackle
Malone: National Army Stores
Pearls Department Store
Massena: National Army
Mayville: Shearers
Mt. Morris: Working-man Store
North Syracuse: Sports Mart
Olean: Lester Shoe
Working-man Store
Painted Post: Ben Brown's
Perry: Working-man Store
Plattsburgh: National Army Stores
Port Henry: National Army
Port Jervis: Al's Mens
Potsdam: National Army
Randolph: Bowen Brothers
Richfield Springs: Ruby's
Rochester: Jay-Ve Fishing Tackle
Marjax Enterprises
Monroe's Toy & Sports
Naum Brothers
Rosenberg & Sons
Rome: Philipson Army & Navy
Rouses Point: Pearls Department Store
Salamanca: Mason's Shoes
Saranac Lake: National Army
Seneca Falls: Working-man Store
Sherman: Sherman's
Syracuse: DeJulius Army & Navy
Theresa: Pearls Department Stores
Ticonderoga: National Army
Pearls Department Store
Tupper Lake: National Army
Utica: Goldstone
Hurd Shoe
Philipson's Army & Navy
Vernon: Vernon Army & Navy
Waverly: Medalies
Webster: Naum Brothers
Wellsville: Ludden's
Westtown: Fred March
Whitney Point: Barnes
VERMONT
Alburg: Pearls Department Store
Enosburg Falls: Pearls Department Store
Richford: Pearls Department Store
St. Albans: National Army
Swanton: Pearls Department Store
WEST VIRGINIA
Clarksburg: National Auto & Radio
Clendenin: Robertson Parris
Glenville: Dalton Store
Grantsville: Dalton Store
Huntington: Kipling Shoe
Banks Miller Supply
Keyser: Davidson's Army & Navy
Graysons Sport
Kingwood: H. P. Stores
Martinsburg: Spickler Sporting Goods
Morgantown: D & D Shoes
Main U.S. Army
Moundsville: Auby's Mens
Parkersburg: Workingmans Store
Parsons: H P Stores
Rainelle: Rainelle Department Store
Romney: Bob-Mar
St. Albans: McClung & Morgan
Sistersville: Lockes Shoe
Spencer: Spencer Department Store
Wheeling: Army & Navy Supply
Outdoor Store

THE SERVUS® RUBBER CO. GENERAL OFFICES AND FACTORY, ROCK ISLAND, ILLINOIS 61201

HOMETOWN
FIRST CLASS MAIL

DISPOSAL TIP

If one has a garden, all lawn clippings, leaves and other vegetable matter should be used either as a mulch or as compost. However, if you live where the disposal of such material is a problem . . . and you don't want your garbage man to ruin your waste cans trying to empty them . . . here is a good solution:

Place wires or stout strings to form a cross in the bottom of a bushel basket . . . with long ends hanging out over the four sides. Line the basket with old newspapers and tromp it full of the vegetable refuse mentioned earlier. Fold the papers over the top, twist opposite wires together and use them to lift the bundle out.

You can put more damp leaves into a basket than dry leaves because they compress better. *—George S. Edmonds, Dover, New Jersey*

FRUSTRATION

Your editorial, "Breach of Promise," describes well the problems of rising expectations encouraged by persons who are unable to fulfill these expectations. This principle is contributing significantly to the friction and bitterness which is prevalent today among minority groups.

I have become increasingly concerned about our efforts to deal with our urban ghetto problems. We are wrestling with actions and attitudes which have been alien to our society in the past, and new responses are clearly required. — *Barber B. Conable, Jr., Congressman (37th N.Y. District), Washington, D. C.*

HIGHER EDUCATION

Little Jimmie Brown iz as proud
as he can be
His Prof has jest conferred on him
An L.S.D. degree
Called "Whoopee."
— Ross Lowe, Watertown, N.Y.



"It was a gay, mad party. We kids Were gay and Mrs. Smith was mad."



San Francisco is called "America's Favorite City." Shown here is famous Golden Gate Bridge and the San Francisco skyline.

1969 SOUTHWEST HOLIDAY

Just about three months from now, a happy party of **American Agriculturist** travelers will head west for the start of a wonderful tour that will take us to the most beautiful and fascinating places in California and the Southwest. The dates are **January 25 to February 9**, and every moment will be packed with thrills and adventure. Here is a brief summary of the itinerary we offer you in cooperation with out tour agents, the Travel Service Bureau of Needham, Massachusetts.

Los Angeles – A modern jet takes us smoothly across the country to this west coast metropolis. During our stay here we will visit the movie star colony of Beverly Hills and the magic kingdom of Disneyland.

San Diego and Tijuana – We travel down the Old Coast Mission Trail to San Diego and from there cross the border into Mexico to spend a few hours in picturesque Tijuana.

Phoenix, the Sunshine Capital, comes next. We'll explore the city, the fashionable Arcadia district with its famous resort hotels and then Scottsdale, a typical "old west" town.

Grand Canyon – Whether or not you have visited this awesome and magnificent National Park before, you will enjoy every mile of the sightseeing drives. On our way here, we will also see beautiful Oak Creek Canyon and visit Petrified Forest National Monument.

Las Vegas – From America's Fun Capital, we make an excursion to Hoover Dam and the Lake Mead Recreational Area where a government guide will explain the operation of the dam and power station.

Death Valley is a favorite spot with Southwest travelers. Here we find the lowest point in the Western Hemisphere – 280 feet below sea level.

Santa Barbara and Monterey – We travel back to the Pacific Coast and then northward along the Mission Trail to colorful Santa Barbara. Continuing past San Simeon, we get a glimpse of the Hearst Castle on our way to Carmel-by-the-Sea and Monterey. We take the famous Seventeen Mile Drive along the Monterey Peninsula and have time to shop in fascinating Carmel.

San Francisco, America's Favorite City, is the last highlight of our trip. Sightseeing here will include Twin Peaks, Seal Rocks, Golden Gate Park, Chinatown, and all the other places for which this city is famous.

Below you will find a coupon to fill out and send in for your free copy of the printed itinerary for our Southwest Holiday. This will give you information about prices and many other details you will want to know. Plan now to go with us to California and the Southwest next January.

Also check the coupon if you'd like the folder describing our **New Year's Eve – Caribbean Cruise Fun Spree**. We will sail to the Caribbean aboard the world's largest ship, the S.S. Oceanic, and ports of call will be St. Thomas, Martinique, Barbados, Grenada, Curacao, and Nassau. Truly this is the vacation of a lifetime!

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Southwest Holiday_____

New York–Caribbean Fun Spree_____

Name _____

Address _____

(Please print)

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Enclosed is $ for a gift subscription for a friend for the term I've checked. Also send the 100-piece Christmas assortment at no extra charge.

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RURAL NEW YORKER
FOR THE NORTHEAST FARMER

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Ed Eastman's Page

THE NEW ENGLAND IDEA

Part 4

America is in a bad way.

Crime is increasing so fast that it is not safe to walk our city streets at night. Rioting in the streets is so bad that frequently it is out of control by police. The yelling and shouting of filthy words by the rioters are beyond the imagination of decent folks. Respect for law is at such a low ebb that many people are obeying only the laws that they like. Without respect for law there can be nothing ahead except anarchy and chaos. Discipline in many homes and schools is at the lowest point it has been in our history.

I am not a pessimist, and I do not want to paint the picture worse than it is, but if you don't agree with these facts look at the headlines of the newspapers or the television screens that scream and picture violence every day. The foul language shouted on the streets by both men and women at the time of the Democratic Convention was unprintable . . . and unthinkable by decent people.

American people must wake up. There must be and there is an answer to all this violence that is leading to destruction. The answer is a return to the principles set forth in what is known as the New England Idea. See this page in the August, September and October issues on how the New Englanders enforced Respect for Law, Sanctity of the Home, and Respect for Work. The New England pioneers and their descendents put these truths into practice and helped to make the greatest country in the world.

Now let's look at New England's Respect for Education:

RESPECT FOR EDUCATION

The American pioneer first built a shelter over his head, then his church, and then he said, "Lest learning be buried in the graves of our fathers, we will establish a school." And they did. The little red schoolhouse (mostly painted white) was a familiar sight in almost every northern early American community. The early Americans knew that there could be no real republic, no real freedom without education.

Education has always been in the very air we breathe. Parents were determined to give their children better educational opportunities than they themselves had, no matter what the sacrifice. But the early schools had strict discipline. "Spare the rod and spoil the child" was a practical reality. Many a boy and girl has been told, "If you get a licking at school, you can expect one at home."

But what is happening now? With better educational facilities than their parents ever dreamed of, we have student rioting on the college campuses, with students out of control, taking over the schoolrooms, and telling the administrators what they have to do.

Yes, respect for education was one of the main planks in the **New England Idea** that made the New Englanders one of the greatest people that ever walked on this earth. And until we restore that respect for education there is little purpose in parents and taxpayers spending millions of dollars (hard-earned savings) to send children to school and college.

Freedom to do what we want to do in the home or school without discipline or respect is not real freedom, and will lead to anarchy and chaos.

FOR FALL AND WINTER EVENINGS

I have before me as I write this a short letter from Walter J. Frank which reads as follows:

"Never have I read a book that gave me as much pleasure as your Journey to Day Before Yesterday. In fact, I have read your book twice and intend to read it again. In the meantime I am lending it to my children."

Letters like that and the many, many others I have received like it, I think justify me in continuing to call my book, "Journey to Day Before Yesterday," to your attention.

The chief reason why so many college students get busted out is that they have had so little practice in reading good books. It was not so long ago . . . when the long fall and winter evenings came at this time of year . . . that the entire family gathered around the reading table. But now there are too many other distractions like cars, television, and radio, and much more socializing than there used to be. Also, unfortunately, many modern books are filled with sex and filth, and are unfit for either young or old to read.

"Journey to Day Before Yesterday," according to its readers, is clean, wholesome, funny, instructive and entertaining, and will give the entire family practice in good reading.

To get a copy write American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York 14850. The price is $7.30, including postage and handling.

MEET CHANGE WITH CHANGE

When I was a small boy in 1900, one farmer could feed only seven other people; today he can feed forty.

On the farm most of the changes that have resulted in production per man have been due to the invention and use of farm machinery and the application of agricultural science.

It is difficult to realize the number of tremendous changes and problems in both city and country.

Statistics are dull reading. But it is interesting to know that about 16% of the farms produce an income of $20,000 a year or more. Another 16% have an annual income of from $10,000 to $20,000, and about 14% from $5,000 to $10,000 a year.

When your income gets below $10,000 the going gets rough, and you need to do some very careful planning to stay in farming. Father's methods were all right for his time but they won't work today. You must meet change with change and plan, plan, plan. Here are a few suggestions:

1. Keep careful RECORDS.
 (a) Know what every crop costs.
 (b) Know the record of every cow, and be ruthless about disposing of the ones that don't pay.
2. Have soils tested, and lime and fertilize as crop indicates.
3. Get all the scientific help you can.
 (a) Use your county agents' office and the many other helps available.
 (b) Read every issue of American Agriculturist.
4. Consider what you can do to supplement your farm income off the farm and still live on the farm.
5. Have some fun with your family.
 (a) Take short vacations.
 (b) Have frequent picnics.
 (c) Visit with your children.

The farm is the best place to raise children. Remember that they soon will be grown and gone.

HE WENT ABOUT DOING GOOD

In the death of Dr. A. K. Getman, agriculture, education and the boys in Future Farmers of America have lost one of their greatest leaders and best friends.

"A. K.," as his legion of friends always called him, was one of the early leaders of vocational agriculture and the Future Farmers. In spite of handicaps of sight and hearing, he rose to the position of Assistant Commissioner of Education of New York State, where he had unlimited opportunity to help rural boys to attain their goals and ideals.

I first knew A. K. when I took one of his courses in teaching agriculture in the New York State College of Agriculture. He could work only with a hearing aid and with his face close to the blackboard when demonstrating a point. Yet with such tremendous handicaps, and with the aid of his wife, Fredella, he secured a Doctor of Science degree, and always went about doing good as a teacher, a leader and a friend as much as anyone I have ever known.

God must have a special place in Heaven for A. K., and wherever that is we can be sure that he will go on doing good with great enthusiasm.

IT IS A KILLER

If some time when you are riding in a closed car you feel a strange tight feeling across your forehead, followed by throbbing temples and nausea, stop the car and get some fresh air quickly. You may be getting carbon monoxide poisoning. Carbon monoxide is an odorless deadly gas which causes over a thousand deaths a year.

To guard against it:

1. Do not leave the engine running when parked.
2. Keep a window open.
3. Never run the engine inside a closed garage.
4. Never drive with the trunk of the car open or with the back glass of a station wagon down. The suction may bring the exhaust gas into the passenger compartment, which could mean "goodnight" and "goodbye" for the passengers.

EASTMAN'S CHESTNUT

Audley I. Benjamin contributed the following, which every minister will appreciate.

A Big Silver Dollar and a Little brown Cent,
Rolling along together went
Rolling along the smooth sidewalk,
When the dollar remarked, for dollars can talk,
You poor little cent
You cheap little mite
I'm brighter and more than twice as bright.
I'm worth more than you one hundredfold.
I've written on me in letters bold
The motto drawn from the pious creed,
In God we trust which all can read.
Yes, I know, said the cent,
I'm a cheap little mite
And I know I'm not big nor good nor bright.
And yet said the cent with a meek little sigh,
You don't go to Church as often as I.

SERVICE BUREAU

For The Northeast Farmer

by M. A. Parsons

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. Leslie Hubbard, Cape Vincent (refund on test kit)	$ 2.50
Mrs. Walter Crandall, Davenport Center (refund on plants)	2.25
Mr. Nelson Sitser, Wappingers Falls (money order refund)	3.48
Miss Nora Knight, Grahamsville (refund on plants)	1.50
Mr. Floyd S. Wilbur, Kingston (refund on plants)	3.00
Mr. Donald M. Hardy, Jordanville (refund on order)	5.96
Mrs. Murray Allen, Mannsville (refund on order)	3.98
Mrs. Robert Bubb, Little Falls (refund on service contract)	20.80
Mr. Everett Stadler, Little Valley (refund of payment)	3.00
Mrs. Ora Stockmyer, Aurora (refund on plants)	2.00
Mrs. Paul H. Beaune, Orchard Park (refund on labels)	1.00
Mrs. Jay Cogswell, Bath (refund on tires)	39.18
Mrs. Paul E. Hubert, Youngsville (refund on dishes)	36.57

PENNSYLVANIA

Mr. D. D. Conard, Schuylkill Haven (refund on book)	5.98
Mr. Frederick S. Henry, Altoona (refund on flag set)	3.85

MAINE

Mrs. Philip Hawkins, Brooks (refund on bushes)	7.50

NEW HAMPSHIRE

Mr. Asa Waterman, Woodsville (credit on charge)	19.09

DESIRABLE PROFILES

"I hope you can solve this mystery for me. Last February I renewed my subscription for the Saturday Evening Post for $6.95 to run until 1972. I had taken it for years.

"The last of July they sent me a letter asking me to select one of four magazines and they were going to discontinue my Post after July 27, which they did. I wrote and told them to send the Post or what money was due me. I have never heard from them.

"A magazine agent near here is still taking subscriptions for the Post and I know two people who just subscribed for it are getting the paper. Why are they taking on new subscriptions if they can't send the Post to their old subscribers?"

It is our understanding that the Saturday Evening Post is cutting off more than one-half of its subscribers, reducing its circulation from 6.8 million to 3 million, and eliminating subscribers not living in A and B markets.

According to their announcement in Standard Rate and Data Service, which is aimed at advertisers, "Application of meticulous methods will allow the Post to guarantee that 80% of the new rate base will be delivered in A and B markets, and in zip code areas within these markets where families with the most desirable profiles are concentrated." They plan to "focus on the prime markets," meaning higher income and more sophisticated groups.

With more than 3 million subscriptions to change over to other publications or on which to make refunds, it is doubtful that any complaints will be straightened out very quickly. We have written the Post to ask what the situation is, and as of this writing we have had no answer, but ours is probably only one of thousands of such inquiries.

SOME INFORMATION

"I would like someone with authority to stop by at my place. I would like some information on laws and regulations on farm land. Your immediate attention will be appreciated."

Occasionally a reader asks us to make a personal visit in answer to his question or complaint, but we do not have a large enough staff to do this. We are glad to do whatever we can by correspondence.

As for our subscriber's broad request for information on laws and regulations, we have no general information of this sort. We can answer many specific questions, such as laws concerning line fences or rules for posting land.

AVAILABLE

A "Consumer Guide for Older People" has been published by the Administration on Aging with the Food and Drug Administration and the President's Committee on Consumer Interests.

This is a wallet-size folder outlining ways you can protect yourself against frauds and swindles. It also serves as a reminder that there are local agencies that can give help in certain instances.

The guide, which covers many of the things about which we are constantly warning our readers, may be had by sending 5¢ for AOA Publication #801, to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

CAN YOU HELP ?

Mr. V. E. Farnsworth, R.F.D. 4, Box 90, Auburn, Maine 04210, would like the following information – addresses of "Skyline" and "Space" magazines (aviation); "Saucer News" published by a Mr. Mosley; any "Organic Gardening" and deep sea diving magazines; where to purchase Chinese Snow Seeds, also, Chinese Nut, Indian Nut, Beechnut, Hazel Nut, Butternut and American grown Chestnut trees.

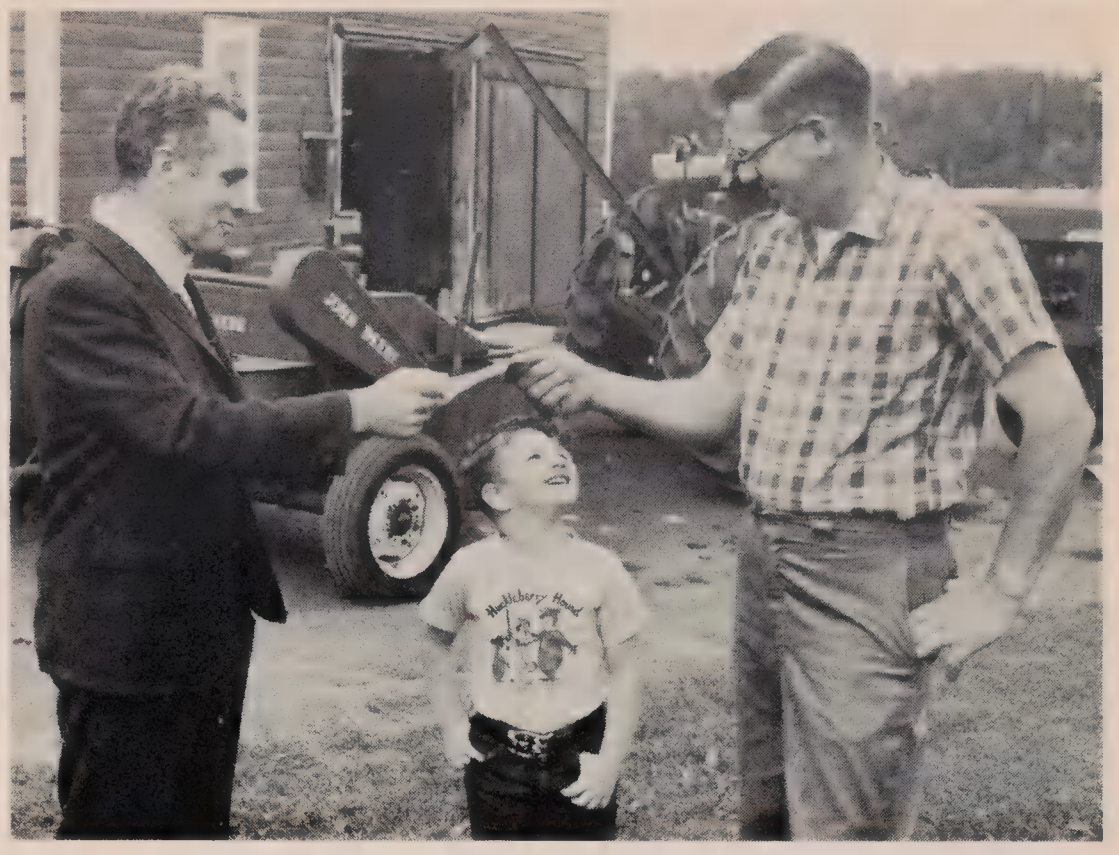
* * *

Mrs. Ray Burke, R.F.D. 2, Montpelier, Vt. 05602, would like a copy of "Peter & Polly In Spring" by Rose Lucia, copyrighted around 1912 and used for readers in the schools.

* * *

Would like to obtain a book entitled "Hollow Tree Stories" which was written about a crow, possum and fox. Mrs. Donald McDonald, R. 1, Lisbon, N.Y. 13658.

Crushed By Heifer



Paul Brisson, left, local agent from Massena, N.Y., hands $1637.12 to Clayton Manson of Constable, N.Y. with young son looking on.

Mr. Manson suffered a severe back injury when milking a heifer for the first time; she suddenly jumped and pinned him against an iron pipe partition. Receiving benefits from three policies for weekly income and medical expenses, Mr. Manson gave this letter of thanks:

"During the time I was disabled I was in two hospitals, had three doctors and had three employees to operate my dairy farm and school bus. I was indeed grateful that I had my North American Accident policies. It is a comfort to know you have so much protection for a reasonable premium."

Clayton A. Manson

OTHER CLAIMS PAID

Wilhelema Graham, Belmont, N.Y. Auto accident—inj. head, neck	$ 701.37	**John McAlpin, Webster, N.Y.** Fell over chair—inj. ribs	$ 310.00
Albert E. Shafer, Angelica, N.Y. Kicked by cow—broke leg	515.29	**Walter Szelegowski, Port Jervis, N.Y.** Fell—injured back	967.59
L. Mae Barlow, Maine, N.Y. Fell going into station—inj. knee	187.70	**Lydia Bacon, Richfield Springs, N.Y.** Caught shoe in mat, fell—broke arm	962.87
Roger Horton, Randolph, N.Y. Struck by cow—broke tooth	210.72	**Carmen Smith, Brasher Falls, N.Y.** Fell—broke wrist	312.84
Ward Lee Phillips, Little Valley, N.Y. Spring slipped—cut eye	413.30	**Lawrence Wells, Herman, N.Y.** Hit by cow— inj. fingers	135.00
Bruck Mosher, Aurora, N.Y. Bike acc.—injured teeth	210.00	**Albert Moeller, Jefferson, N.Y.** Fell over wagon tongue—inj. shoulder	147.81
G. Lavonne TenPas, Falconer, N.Y. Fell from hay mow—broke leg	946.01	**Wayne Simpkins, Odessa, N.Y.** Auto accident—multiple injuries	688.53
Fred Pace, Falconer, N.Y. Hit by truck door—inj. knee	1494.79	**Elmo Updike, Lodi, N.Y.** Stepped into hole—inj. back	137.78
Edson Austin, Horseheads, N.Y. Kicked by cow—broke ribs	291.42	**Howard W. Heckman, Greenwood, N.Y.** Playing soccer—inj. ankle	356.00
William Fitzgerald, Oxford, N.Y. Caught in pulley—inj. hand	234.76	**Phillip Margeson, Avoca, N.Y.** Thrown off tractor—inj. back	214.25
Leo G. LaFave, Altona, N.Y. Caught in power saw—cut finger	184.99	**John H. Gempler, Kenoza Lake, N.Y.** Auto accident—multiple injuries	696.90
E. Gordon Gillette, Cortland, N.Y. Slipped on floor—internal injury	125.70	**Jay Ball, Barton, N.Y.** Fell, gun discharged—inj. head	242.27
Robert Mead, Roxbury, N.Y. Thrown from wagon—inj. foot	217.53	**Nellie Snapp, Newark Valley, N.Y.** Auto accident—injured legs	683.64
James N. Bush, Holland, N.Y. Fell from ladder—broke leg	320.00	**Franklin Mott, Groton, N.Y.** Barrel exploded—inj. hand, head	858.08
Ronald Burger, Springville, N.Y. Tractor accident—broke collar bone	205.00	**George Howk, Whitehall, N.Y.** Auto accident—multiple cuts, fractures	1515.00
Donald Dumas, North Bangor, N.Y. Telephone wire fell—cut arm	523.51	**Donald East, Marion, N.Y.** Caught in car door—broke fingers	775.91
Howard VanOstrand, LeRoy, N.Y. Caught on tractor belt—inj. hand	429.11	**Allen Halsey, Palmyra, N.Y.** Fell from motorcycle—broke leg	935.58
Albert Harper, Little Falls, N.Y. Window fell—broke fingers	178.92	**Larry Olsowsky, Bliss, N.Y.** Auto accident—concussion	1115.71
Harland Mower, Jr. Truck accident—broke arm	356.78	**Orton Mattocks, Troy, Pa.** Caught in silage blower—injured arm	145.00
Thomas Holl, Watertown, N.Y. Auto accident—multiple bruises	287.06	**Leo Henley, Jr., Ulster, Pa.** Motorcycle accident—multi. cuts & bruises	676.00
Robert Boshart, Lowville, N.Y. Caught in roto-tiller—inj. foot	267.51	**Lindy Hansen, Russell, Pa.** Fell off pony—bruised face	104.50
Harold Boshart, Lowville, N.Y. Gored by bull—cut face, head	375.00	**John Schlasta, Jermyn, Pa.** Kicked by bull—broke ribs	361.43
Elizabeth DeNoon, Caledonia, N.Y. Fell—broke ankle	481.62	**Earle H. Jones, Blairstown, N.J.** Shot by hunter—inj. forearm	364.72
Myron Peebles, Oneida, N.Y. Fell down stairs—broke arm	235.00	**Vicki Slocum, Freehold, N.J.** Fell off bike—broke wrist	138.00
Natalie Verstraete, Webster, N.Y. Auto accident—injured neck	215.00	**Charles J. Krasnecky, Hardwick, Mass.** Rammed by bull—inj. chest	240.70
William Gleason, Amsterdam, N.Y. Kicked by cow—broke toe	159.72	**Philo T. Withington, North Hartland, Vt.** Caught in PTO—broke ankle	175.00
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For The
Northeast Farmer

DECEMBER 1968

American Agriculturist
and the
RURAL NEW YORKER

$7 million is being spent on P and K in the Northeast right now.

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No doubt about it.

Fall and early winter are excellent times to apply phosphorus and potash for next year's corn. And to your orchards, too. It's also recommended that you top-dress your alfalfa now with phosphorus, potash, and boron to help resist winter damage. But don't surface-apply fertilizer in December where there's more than a 5% slope.

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Farm Enterprise Service is a broad group of farm-information and business-related services developed by Agway to meet the needs of members in areas of decision making: how to make the best use of land, capital, labor; which crops to plant; which seed varieties to buy; what chemicals to use; what are the least-cost routes to profitable feeding; what to build; how and when to automate.

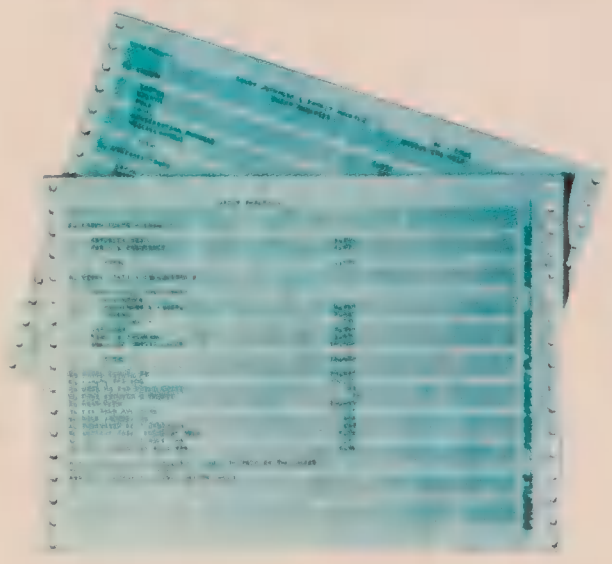
Farm Enterprise Service is tuned to the fact that farming is a complex business. The investments required demand the right decisions to assure financial safety and adequate returns. Agway is adapting to these new conditions by providing new services that meet farmers' new needs.

Enterprise and your objectives

One part of Farm Enterprise Service is planning, in detail, your total crop program in relation to all other parts of your farm enterprise. It enables you to determine how many acres of what crops you need to plant to meet your feeding and financial requirements; how much phosphorus and how much potash are actually in the ground; how much fertilizer and what analysis must be applied on each field; the advantages of having it spread by Agway; which seed varieties and pesticides are required to attain the yields you need.

How to go about it.

The practical way to find out about Farm Enterprise Service and how to put it to work for you is to test it by asking what is your least-cost fertilizing program beginning now. To get things started, visit your Agway store or representative, or write to N. E. White, Agway Inc., Box 1333, Syracuse, N. Y. 13201.



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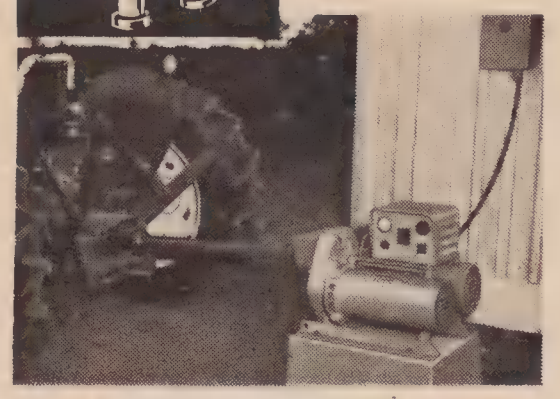


Keep 'em glowing





Keep 'em going



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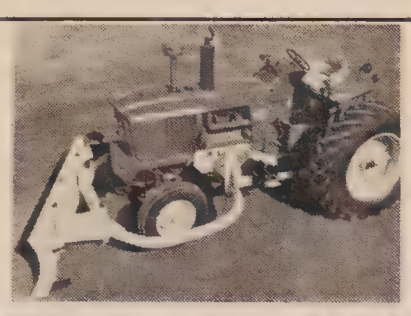
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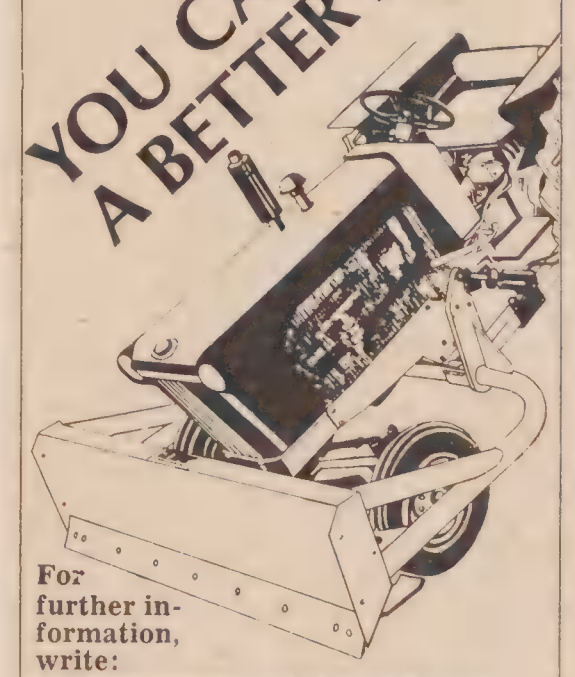
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For The Northeast Farmer

American Agriculturist and the RURAL NEW YORKER

Vol. 165, No. 12

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OUR COVER

Frank Wadleigh, son Mac, and grandson John happily bring in the Christmas trees. They were cut on the grounds of Mr. and Mrs. Max Markmann of Newport, New Hampshire. Mrs. Markmann is the lady in red, and that's her dog "Quinie" in the foreground.

Photo: Max Markmann



The lean, hungry, muscular Pioneer

The Pioneer Holiday *really* earns its keep. It's easy-to-handle, lightweight, and powerful, with enough muscle to speed through the toughest woodcutting jobs. Adapts to take on a Brushcutter for stand-up clearing of brush and weeds. Or a Multi-Purpose Cutter to slice through concrete, steel, fiberboard. Or you can quickly convert it to power a pump, a compressor, a winch, you name it.

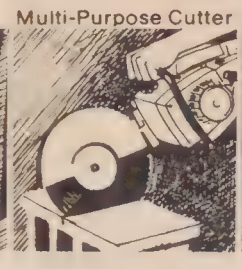
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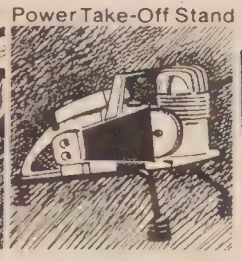
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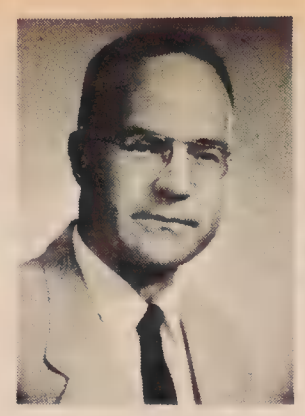
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EDITORIALS



by GORDON CONKLIN

LIVING GIFT

For a Christmas tree, some folks use a living evergreen tree . . . one dug up, rather than cut off, and therefore possible to plant after the festivities are over.

You can also provide a living gift to hungry people in the underprivileged nations . . . through Heifer Project at either 14 Beacon Street, Boston, Massachusetts 02108, or Green Lake Road, Fayetteville, New York 13066.

Heifer Project is a 25-year-old organization that sends live animals of many kinds all over the world. These animals form the seed-stock for an area; each recipient pledges his gift's first offspring to a needy neighbor.

Heifers were the first animals to be sent . . . thus the name . . . but Heifer Project also now sends goats, sheep, pigs, rabbits, bees, and chicks. There have been recipients in 84 countries; these recipients receive animal-care training along with the animals.

At Christmas time, there are so many demands on your pocketbook that you may feel like a yo-yo. But here's a cause that is a good example of that ancient proverb, "Give a man a fish and he will eat for a day, but teach him how to fish and he will eat for the rest of his life."

GOOSE PROJECT

A letter from a farmer near Stevens, Pennsylvania, reports that he and 82 other families were recently forced from 3000 acres of land to make way for a wild duck and goose project.

Another property owner in Pennsylvania . . . this one from the East Stroudsburg area . . . has written about the burgeoning Delaware Water Gap National Recreation Area. This project involves the taking of approximately 70,675 acres from 9,000 property owners, and will when completed back water up the Delaware nearly to Port Jervis, New York. The major official reason for its construction is "public outdoor recreation benefits."

Standing in the wings is the recently beaten-down proposal to dam the Genesee River near Portageville, New York, along with the acquisition of 21,000 acres in that fertile valley. Here again, the official justification is largely on the basis of recreation.

In every state of the Northeast the script reads in similar fashion. Programs on behalf of the "public good" are grabbing growing numbers of the individual landowners in their properties.

Now inasmuch as procreation will likely remain a popular activity, we're going to have more people in the Northeast . . . and therefore growing needs for more geography on behalf of roads, recreation, and riot prevention. So the individual should be prepared to get out of the way as gracefully as possible, in many instances, when the power of eminent domain heads his way.

There are two things, though, that bug me about the process:

1. How come so many proposals in New York State press for taking thousands of acres of top farm land for public recreation, when two million acres of "forever wild" land . . . already abundantly supplied with natural lakes . . . remains in pristine untouchability?

I'm told New York's "forever wild" concept was begun long ago by a few wealthy families who wanted their existing summer estates in the Catskills and Adirondacks protected from potential invasion by the unwashed masses. It is perpetuated by well-meaning folks of ordinary economic means for whom the idea of eternal wilderness has become a religion of compelling intensity.

2. Wouldn't it be better to build small dams on selected tributaries . . . rather than huge structures on major rivers? Many tributaries involve agricultural land of limited size, or of marginal value . . . and yet offer considerable recreational potential.

BARGAINING POWER

Saw the results of a poll of farmers the other day . . . one in which **97 percent** of the farmers responding said "yes" to the question, "Must farmers attain a more favorable bargaining position?" Regardless of size of business, geographical location, or political affiliation, farmers agree in a thunderous chorus on that one.

But, unfortunately, such rare unanimity among farmers is like asking them about God or motherhood . . . everyone is for the idea, but many are not willing to shoulder the responsibilities. Bluntly, freedom is not free; the traditional freedoms that farmers enjoy are costly when it comes to achieving bargaining-power equality with monolithic power structures like the United Auto Workers or General Motors.

Economists will tell you that "the elasticity of demand for food in the aggregate is zero" . . . a group of $64 words saying that every human being **has** to eat or die. This being the case, farmers have potentially the strongest bargaining position of any occupational group, for they produce an absolutely-essential product, the consumption of which cannot be deferred very long.

Why, then, haven't they fared very well indeed in the marketplace? How come that comparatively-low farm incomes are characteristic of every developed country in the world?

First of all, farm units are generally small compared to the "middlemen" purchasers of farm products . . . and every farmer actually competes with other farmers . . . "atomistic competition" I think it's called. Internal discipline within most farm cooperatives has been notoriously weak. And if an organized group of farmers struggles successfully to raise an at-farm price, then other farmers gleefully take advantage of the situation . . . without shouldering any of the grief involved in the scrap . . . and normally weakening the price.

Another reason for disappointing returns to farmers is that the majority of farm people are willing to work for a lower return on their own farms than they would demand for doing the same job for someone else. Another way of saying this is that there are more **people** in the work force of American farming than are needed . . . or, as the economist would say, "A surplus of the human resource exists in agriculture." It's almost impossible for any economic system to pay people more than they are willing to accept!

My guess is that the high degree of individualism so traditional in farming is one of the largely unrecognized fringe benefits that **keeps** many people farming in spite of lower monetary returns than might be earned in alternative occupations. But, I repeat, freedom is not free . . . the freedom of action enjoyed by the farmer automatically undermines the very bargaining power which he so fervently seeks.

Are farmers really so oblivious to what members of the UAW have given up to gain the bargaining clout possessed by that power structure? The UAW's work in a closed shop . . . no joinee, no workee. And the dues . . . large enough to make Farm Bureau dues look like peanuts . . . are taken out of the paycheck in advance . . . and in an amount sufficient to build up a $60 million strike fund, as well as pay dozens of other budget items. If the union boss says "strike," then you'd better stay home . . . or get your noggin split!

Farmers, as human as anyone else, secretly long to have their cake and eat it too . . . to gain the bargaining muscle possessed by a hard-nose outfit, and at the same time to retain the luxury of doing as they damn please whenever things don't suit them.

Whether some freedom of choice is sacrificed to government, to a commodity cooperative, to a processor through contract, or to a general bargaining unit . . . the principle is the same. The facts of life, folks, point to an inescapable conclusion . . . the attainment of really strong bargaining power inevitably requires a considerable diminishment of flexibility in calling your own shots.

Are you **really** willing to pay the price for what you profess to desire?

NEW JERSEY PUZZLE

For quite some time, the Office of Milk Industry in New Jersey has . . . under the authority of a state milk control law . . . set minimum retail milk prices for milk sold out of stores. The major intent has been to prevent the use of milk as a supermarket "loss leader," touching off a price war that might have a depressing effect on the entire milk industry.

Setting minimum milk prices has become a bone of contention in the Garden State . . . in spite of the fact that the majority of milk sold in the State has apparently moved at prices **above** the set minimums. In effect, then, minimum price levels have served primarily as a floor, but the market has been the price setter. Periodically, though, there has been a big hassle over just what level the minimum price should be.

One of the leaders in several attempts to get the minimum price **lowered** has been Garden State Farms of Midland Park, New Jersey. Statements by that organization have been very detailed . . . and included such heartrending phrases as, "New Jersey families in the lower income groups could not afford all the milk their children needed." The tenor of the reports implied that, if it weren't for those nasty old minimum prices, the retail price of milk charged by Garden State Farms would be considerably lower.

Now comes the puzzle . . . I have evidence that Garden State charges **more** than the legal minimum prices in some of its stores. My attempts to gain more information from the company by letter have met with a profound silence.

Can anyone help me understand this puzzler?

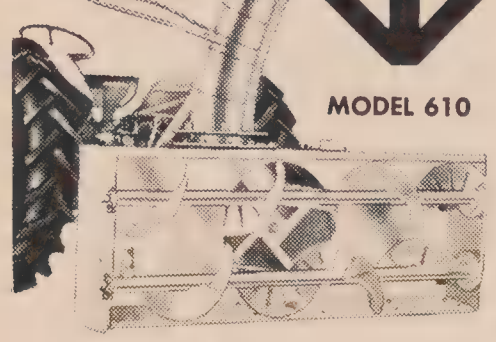

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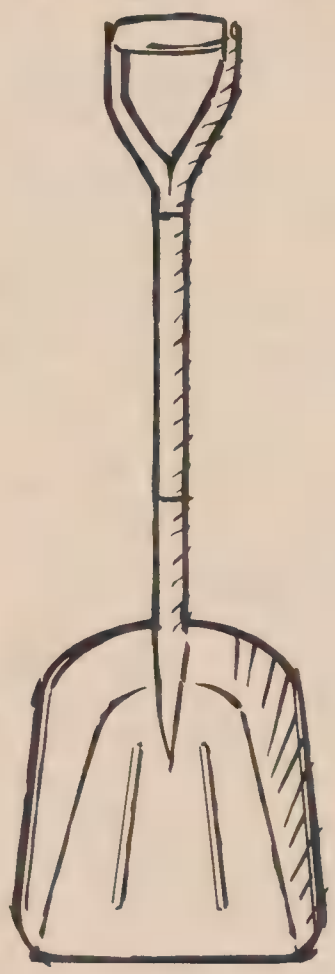
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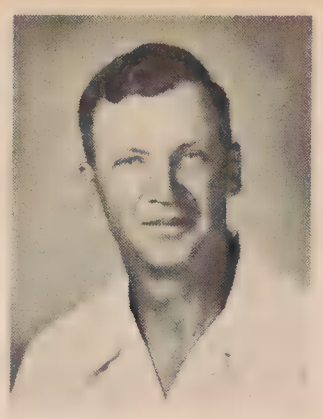
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Gayway Farm Notes

by HAROLD HAWLEY

SIX DOLLAR MILK

The lag in our thinking is sometimes incredible. Recently I was part of a group of dairymen discussing the cost-price squeeze we were caught in. A year or two ago this conversation would have made pretty good sense.

With feed about as cheap as one can imagine and with milk at an all-time high, it is about time we started to sing a new song. Sure, all cost items are up, but it is my guess that with the mechanization of feed and manure handling, the reduced labor requirements in milking, plus the increase in size of herds, the net income on many dairy farms will exceed anything in recent years.

Hopefully, we will take some steps to try to keep income up. One thing that is obvious is that fluid milk utilization has increased. There are many explanations for this, but certainly a better job of promotion is part of the reason. Let's hope every dairyman will assume his share of the job of promoting milk. It shouldn't be necessary to force people to do this. Their good business sense and their sense of fair play should prompt them to join with the rest to do a better job of helping themselves by promoting their product.

Another obvious way to help ourselves is to develop new products and new ways of offering milk to the public. We salute those who are breaking through this barrier and selling something to compete with coffee cream and other dairy substitutes.

There are many additional things that can be done if we will just be willing to support legislation allowing dealers to alter milk . . . to change its "natural" content and to add antioxidants, etc. We've been mighty slow to recognize that science can help us improve "nature's most perfect food."

THE SERVICE GAP

I frequently hear farmers say that there should be a dealer or middleman between the grower of corn and the livestock man who feeds it. Of course, there are plenty of firms who buy shelled corn or ear corn, dry it, ship it, and re-sell it to dairymen. They provide a necessary service but certainly not the service most needed.

The logical way to most dairymen to move corn from most farms is as ear corn. Knowledgeable dairymen prefer to have the cob ground into their cow feed. Shelling the corn and drying it provide no needed service, and merely increase the spread between the producer and the feeder of the corn . . . thus reducing the return to the grower and the cost to the feeder.

A few people have gone into the business of acting as middleman for corn growers and dairymen . . . handling ear corn. It seems a shame, with the need and opportunity so obvious, that others (including our farmer co-ops) don't get into the act.

CHANGE LOCATION

Once buildings are located it seems natural to continue there, but one sometimes wonders if it wouldn't be smart to move away from the problems some of them involve. I think of one farmstead so located that the barn is down a steep slope from the house and road. The headaches involved in getting milk, etc. to the road would cause me to value that farm pretty low.

One of the real nice things to have going for you is plenty of water in the pasture. But what about a stream large enough to create a problem in getting cows across it each milking time? Or how much less is a farm worth which has a supply of hot and cold running water threatening to run through the barn every time the creek goes over its banks?

It all boils down to the fact that many farm buildings are so badly located as to greatly reduce any possibility of labor efficiency or pleasure in working in them. This merely points up the real importance of studying the layout for quite a spell before building additional barns, sheds, or cribs.

Sometimes in our zeal to get cribs located along existing driveways or near sources of electric power we forget that of first importance should be sunshine, air movement, and high ground to insure freedom from flooding and/or dampness.

Getting silos located so one can get up to them to fill them and so that the feed comes down near where it is to be fed is also a problem, especially when one or more silos are added to an existing setup.

Even on a new structure one can go wrong. We put our silos on one end of our barn which was fine except for one important thing . . . our silo room is exactly where we should have a pump to remove liquid manure. In spite of this obvious boo-boo it's pretty clear that our setup is a lot handier and more efficient because we built completely away from the old barns rather than attached to them.

SILO TO THE RESCUE

With no frost at normal time this fall, corn plants continued to live and to keep the ear nourished and wet. While grain was hard and ripe early, the cobs held moisture for weeks. We had planned to fill a silo with high-moisture ground ear corn, so we were able to proceed in spite of the moisture in the cobs. For quite a while we were picking corn which would not have been safe to crib. It's easy to work up a head of enthusiasm for a system which lets you proceed with harvest when you want to do it.

Our experience this last fall in feeding the high-moisture corn has been interesting. It looked as though we would run out a little before we could refill, so along about the middle of August we cut down the rate of feeding. We had been taking off about two inches of corn a day but dropped to about one inch. This should have caused problems with mold, but it didn't.

We aren't sure how little one can feed without trouble, but at least where the feed is well packed it is not necessary to feed as much each day as we had thought.

MECHANICAL FEEDERS

After four years of feeding our cows with augers we are in the process of switching over to a conveyor-type feeding system. The reasons? The augers just did not wear well enough. Both the flights and the tubes have worn out and have been replaced at least once on a section-by-section basis.

We also have felt that there was something to be desired in the job of distributing feed along the bunk. We have never been able to get a nice uniform windrow of feed down the length of the bunks.

The problem of uniform distribution is not so important in most barns as in ours, where we feed in bunks that are between the rows of free stalls. This means that most cows will only get whatever feed falls in front of them.

Corn silage could be fed pretty well, but when we took to running varying amounts of haylage and high-moisture corn through it also . . . well, it just wasn't quite satisfactory.

It's too early yet to tell whether we've bettered ourselves as far as life of the equipment is concerned. More uniformity of feeding can be had with the new system.

GREETINGS

From each of us at Gayway Farms to each of you, our wishes for a very Merry Christmas and a Happy, Healthy 1969.

American Agriculturist, December, 1968

We could have built this spreader for $100 less



...but how many of these features would you want to give up?

PENTA TREATED WOOD BOX — sides, end and bottom for long wear, greater resistance to acids.

STRUCTURAL STEEL FRAME and cross members, formed steel vertical supports, inverted arch and full length steel flareboards — a unitized body to work with the load.

PTO DRIVE MECHANISM — biggest, toughest in New Idea history, built to last. Practically maintenance-free. Has a Belleville slip clutch instead of a shear bolt, fully-splined feed shaft (not just keyed), rugged gearbox and ratchet, and heat-treated ductile iron conveyor sprockets.

BEEFED-UP CONVEYOR — newly positioned rail steel angle bars are riveted to improved attaching links with 20% thicker rivets. Result: longer bar and chain life.

HEAVY-DUTY A-FRAME HITCH, welded for extra strength, has jack as standard equipment.

SPECIALLY FORMED STEEL AXLES — with fatigue-proof spindles to carry heavier loads for years of trouble-free service!

BIGGER, TOUGHER BRACKETS for conveyor idler sprockets, easy to adjust.

NON-CORROSIVE POLYETHYLENE safety shielding (not steel) on power drive shafts.

GREATER "LEVEL LOAD" CAPACITY — wider boxes that give you greater capacity without excessive heaping.

WIDE RANGE OF SPREADING RATES, rope-controlled from the tractor seat. Five rates plus neutral and clean-out.

LOW COST WAY TO HANDLE SLOPPY MANURE with optional mechanical or patented hydraulic endgates — and for the single beater, a pan attachment.

9 PTO's from New Idea...3 spreading mechanisms, 3 sizes: 135-bu., 165-bu., 195-bu.

In addition to the Flail and the Cylinder/Paddle mechanisms, there's the rugged, economical Single Beater (above). Its special paddles are made of ¼" steel plate, and are set at a 25° angle. Tips are canted for optimum "slicing" through large chunks, and for keeping manure low. See the New Idea PTO SuperSpreader with full year warranty. Three sizes of each type.

Low maintenance cost over the years, with higher trade-in value means less yearly cost to you.

AVCO NEW IDEA FARM EQUIPMENT

COLDWATER, OHIO 45828

Personal Farm Experience

LITTLE CRITTERS

Not all livestock in the Northeast are large. For instance, Kenneth Hall of Wolcott, New York, has 900 female mink in an arrangement similar to caged poultry. He plans on whelping an average of four kits per female.

The kits are vaccinated against distemper, botulism, and virus enteritis . . . and are fed on by-products of the meat industry (chicken, turkey, duck, cattle, fish, etc.). About 1300 pounds of meat is ground each day at the Hall dining hall for mink.

The pelting season generally begins around Thanksgiving time, and is completed by Christmas. Mink fur "primes up" at that time, a process that begins on the tail. Fat is scraped from the pelts; after drying, they're refrigerated to prevent insect damage before going on to market in New York City.

Not far from the Hall place is the farm of Gilman Marshall of North Rose . . . where 4000 ferrets are raised for research purposes in medical and pharmaceutical laboratories. A ferret is an unusually clean animal, always depositing its fecal matter at the far end of the wire cage. A nesting box in front of the cage contains sugar cane or wood shavings as litter.

Feeding material here includes by-products from the beef packing industry only, plus supplementary vitamins, minerals, and protein. Watering is accomplished by use of a Hart cup, similar to that used with caged laying hens.

The Marshalls have the only large group of ferrets in the country, and send animals all over the United States and Canada. As with mink, raising these little critters successfully requires considerable technical skill.



Glenn (left) and Clyde Maxon.

NEW BARN

The Maxon family . . . Homer, the father, and two sons Glenn and Clyde . . . are milking 100 purebred Holsteins in an 80×208 free stall barn about a year old. The barn has 128 free stalls.

"We cut the cost by doing a lot of the work ourselves," said Glenn. "First, I visited other free stall setups . . . including several on a bus tour to Michigan. After we had what we wanted well in mind, Dad put some plans on paper and we got several bids on the necessary material.

"Instead of building a concrete pit for manure, we found two 22,000-gallon storage tanks which we buried at one end of the barn. Droppings are scraped into the tanks and pumped out into a liquid spreader. We spread about every 3 weeks.

"We bought pipes wholesale and bent and welded them into partitions between stalls. We hired one carpenter, but the three of us did about 80 percent of the work ourselves. The setup includes 2 silos, each 24×70 feet, one for haylage and one for corn silage. These we bought, including construction."

I was also interested in three tubs on this farm, resembling silos, but not very tall. These were purchased from a canning company and used for storing grain. Each one holds 2000 bushels.

The silos are equipped with unloaders which deliver feed into a bunker in the center of the barn. It is then distributed by an old gutter cleaner . . . another saving on equipment costs. Baled hay is stored at one end of the building. Strings on the bales are cut, and the hay is dumped where the cows can reach it.

The Maxons farm 370 acres near Holley in Genesee County, New York. In addition to the three in the family, there are two full-time hired men. — *Hugh Cosline*

DOGS AND SHEEP

We hear that sheep-killing dogs are one of the chief reasons for the decline in sheep numbers on northeastern farms. Probably the idea is exaggerated. At least, that's the opinion of Gordon Wilson of Canaseraga, New York.

"Sheep are mortgage payers," he declared. "We do lose some sheep to dogs, but we shoot to kill when dogs chase sheep, and the county pays for sheep that are killed or injured by dogs.

"Once a man called and threatened to report me to the State Troopers for shooting a dog. I told him to do just that. He wouldn't tell me his name, and hung up. "As I understand the law, you can shoot any dog, even if he wears a license tag, if he is chasing sheep.

At one time the assessors tended to undervalue sheep, but they have been reasonable lately, and when we do have an occasional claim we get a check promptly. Before that I appealed to the State a couple of times, with good results. As you probably know, the money to pay for sheep killed by dogs comes from dog license fees."

Mr. Wilson, now 80 years of age, has three sons as partners . . . Gordon, Jr., Eric, and John. They have a herd of 75 grade Holsteins, and are milking 45 right now. In addition, they grow and fatten from 75 to 80 feeder calves each year.

For crops they grow 180 acres of corn, filling 4 silos and husking around 23,000 bushels, and 100 acres of oats.

The original farm of 155 acres has been in the family for 70 years, but since that time the area farmed has increased to around 2000 acres. That sounds like a big farm, but it's not so big when you realize that it is operated by four families. — *H.L.C.*

SNAP BEAN FEED

Chester Zelasny of Medina, New York, is a veteran of the U.S. Air Force, and still belongs to the Air Force Reserve, which means that he must fly at least 10 hours a month. Chester is also a dairyman in partnership with two brothers, Walter and Marion.

It would be more correct to refer to it as a livestock farm. In addition to 65 dairy cows, plus young stock, the brothers buy and fatten 50 Herefords, and raise some 115 hogs . . . with plans to increase to 200. The beef animals are bought when at a weight around 375 pounds. The pigs are bought when weaned, fed mostly corn, and sold when they weigh around 200 pounds.

I asked about the roughage program.

"We feed very little hay in the summer," said Chester. "During the pea season we bring home a 10-ton truckload of pea vines every day . . . right now, we have 400 tons in a stack for winter feeding. Later, we get around five tons of snap bean clippings every day. The cows really go for them. We also do some green-chopping.

"We grow around 400 acres of corn, some for silage, but we pick, shell, dry and sell a lot of corn . . . mostly to nearby dairymen.

"At one time we grew other cash crops. We have quit growing tomatoes, largely because of the labor required. We are still growing 8 acres of Danish cabbage."

For the grain ration, the boys grind and mix oats, corn, and a supplement plus one pound of urea per 100 pounds of grain. — *H.L.C.*

VEGETABLES

A vast quantity of vegetables can be grown on 2200 acres, and Howard Farms, Inc. of Fancher, New York, is doing just that.



Brodie Howard

I was lucky in finding Brodie Howard at home and willing to talk. The corporation is owned by him, his father (Veeder) and two brothers, Ted and Steve. To operate this kind of a farm 40 migrant workers are employed in summer and 20 in winter.

"We grow 200 acres of cabbage," said Brodie. "About a third of it goes for sauerkraut, and the rest is stored and sold during the winter. Our winter help is mostly used to trim cabbage."

In addition to the cabbage, the following crops are grown: broccoli, from 125 to 225 acres; snap beans, 1500 acres; cucumbers for pickles, 50 acres. At one time tomatoes were grown, but they competed for labor with other crops, and were dropped. Also, some 30 to 40 acres of cauliflower was grown, but yields were uncertain, so this crop was also dropped.

Broccoli is harvested by a self-propelled belt harvester that covers 28 rows. As it moves along, one man cuts the broccoli from each row and a belt carries it to a truck.

"We own five snap bean pickers," said Brodie. "We also grow a considerable acreage of wheat and corn to provide a rotation. The farm was incorporated in 1960."

On an operation of this size, record-keeping is quite a chore. Veeder Howard is in charge, but Brodie commented that the records are checked with a certified public accountant about once a month.

As I was leaving, Brodie mentioned casually that two-way radios provide contact with men in the field and save many steps. — *H.L.C.*

NEW BARN

Tom Hathorn of Stanley (Ontario County), New York, has as a goal the production of one million pounds of milk per man. He's moving toward a herd of 80 cows by the beginning of 1969 . . . in a new free stall barn recently built.

Before building the barn, the Hathorns worked out, with Extension Agent Larry Davis's help, a careful budget of expected costs and receipts. It was based on the assumption of $4-per-cwt. milk and a production drop from 15,000 pounds of milk per cow down to 12,000 pounds annually. However, milk may average nearer $5 per hundredweight and the production drop when moving in to the new barn has been less severe than anticipated.

There are two concrete-stave silos (each 20×60), one holding haylage and the other corn silage. Tom reports the cows prefer corn silage, but he mixes the two so cows clean up both.

Tom remodeled his stanchion barn only 10 years ago, but now uses it for calf pens, hay storage and dry cows . . . believing it is too inefficient for the milking herd. The new setup includes a double-3 milking parlor with 3 milker units . . . and having walls with glass-hard expoxy paint.

Another of the many examples of dairymen who are building more labor-efficient setups and moving out of stanchion barns that might appear adequate to the casual observer. — *GLC*

New name for atrazine is AAtrex™, but...

It's the same stuff.

All we're going to do, really, is give atrazine a brand name. It's AAtrex.

That's all there is to it. Nothing else. Just the natural desire of a company to have its own trademarked name for a product.

Geigy isn't changing the herbicide. It's the same stuff. Except it will be called AAtrex 80W brand of atrazine.

And you'll get the same season-long control of annual broadleaf and grassy weeds with AAtrex that you got when you called it atrazine.

There might be two kinds of packages in some areas this year. One will say atrazine and the other AAtrex brand of atrazine herbicide.

But don't let this throw you. It's the same stuff in both bags. Geigy Agricultural Chemicals, Division of Geigy Chemical Corp., Ardsley, N.Y. ***AAtrex by Geigy***



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FLUSH TOILETS FOR COWS

THE Green Dairy Farms are headquartered near Wolcott, New York, but they include 1600 acres owned by the family corporation that includes brothers George and Felix, their father Hugh, sister Florabel, and her husband, Clarence Crane. They're building a new barn that includes a number of innovations.

Farmers have always dreamed of flush toilets for cows . . . and that's what you'll find here! A wall of water rushing from concrete stock watering tanks flushes manure from the alleys in the new free stall barn . . . and moves it to a huge tank with a capacity of 200,000 gallons. From here it is periodically blasted on the land by an irrigation rig.

Big Motor

The irrigation pump is powered by a 40-horsepower electric motor (3-phase power is available) that can deliver 1000 pounds of liquid per minute at a distance of 5000 feet from the pump, assuming no lift. Irrigation pipe has couplings that automatically "unbutton" when line pressure goes to zero, so the pipes will drain in wintertime. One "big gun" irrigation nozzle is used at the end of the line . . . having a coverage area of 2.8 acres at a setting. The Greens plan on operating the pump at times when off-peak power rates apply.

The new barn measures 152 × 118 feet, has 175 free stalls in six rows, and includes a double-8 herringbone milking parlor with 16 milker units (plans call for using only 8 at a time). Nearby is the old barn . . . built in 1956 and added to in 1962 . . . measuring 36 × 310 feet and containing 129 tie stalls.

Both barns hold milkers, but all milking is done in the parlor. Milk goes through a plate cooler, then into a 5000-gallon bulk tank, and finally through an overhead pipe to the bottling plant from which the Greens retail the herd's production. Wash and rinse water from the bottling plant, by the way, also goes to the big tank for subsequent pumping to the fields.

All Corn

Crops on these fields included 475 acres of corn in 1968 . . . there are 13 silos involved in the operation. At the main barns there are two 24 × 70's full of corn silage, and four 14 × 50's full of high-moisture corn-and-cob grain. Haylage is made in the silos for summer feeding, and 5000 bales of hay were made last summer for feeding heifers. The milking herd got no hay this year . . . and 172 cows posted a herd average of 14,146 pounds of milk, 526 of fat. No grain is fed in the parlor; the herd is instead divided into groups and fed according to production.

The Green brothers spent much of the 1967-68 winter looking at other new barns . . . including a "flush-toilet" setup in South Carolina. Because they've been selling retail milk for many years, they're unusually conscious of product quality when making building plans. The plate cooler between the milking parlor and bulk tank, for instance, prevents warm milk from being mixed with cold milk . . . it's all cold.

A low-line pipeline carries milk from the parlor weigh jars to the bulk tank . . . preventing the foaming that mixes air with milk to cause rancidity. The farm has for years been enrolled in the NYS Mastitis Control Program, and plans call for an effective hot water rinse of teat cups between cows.

Employees

To run a business of this size (including a roadside dairy bar) requires many people, as many as 40 during the summer. Full-time employees generally work 6 days a week and have two weeks' vacation annually. The Greens provide an "on the house" vacation spot for employees on an island in the St. Lawrence river . . . all the employee has to provide is his food.

Around the walls of the Green Dairy Bar you'll often see additional evidence of the Green's human relations efforts. Wayne County kindergarten children come in groups each year to visit the farm, and the pictures they draw of what they saw are posted at the restaurant.

Just wait 'til these budding artists see that wall of water cleaning the barn!

Holiday Greetings



Here's where "non-skid" pays off . . .

it's those extra pounds of milk at weighing time! More dairymen are spreading our Barn Calcite — most everybody calls it "non-skid" — on their barn floors and runways because it *really* takes hold . . . keeps their cows on firm footing even in wet weather . . . helps them produce all the milk that's bred into them. Lime Crest Barn Calcite also keeps floors white and clean looking so much longer . . . it's economical, easy to use, and makes better fertilizer, too.

Your feed or farm supply dealer is the man to call. If he's out of "non-skid" right now, send us his name . . . we'll make every effort to see that he's supplied.

LIME CREST
BARN CALCITE
LIMESTONE PRODUCTS CORPORATION OF AMERICA, NEWTON, NEW JERSEY

Food For The Spirit



by Robert Clingan

"PRESENTS" OR "PRESENCE"

So often we ask for presents at Christmas time. A husband asks his wife, "What do you really want this year?" Our children are told to address a letter to Santa Claus listing "all the things I want for Christmas," and mail it to St. Nick, North Pole . . . but be sure Daddy or Mommy see it before it is sealed, sent and delivered! Christmas has become a time of gift-giving and receiving. **Presents** are the order of the day.

When we re-study the origin of the festival of Christmas, the reason for it all, why it began in the first place, we find it has nothing to do with presents at all. The Wise Men who brought him gifts did not come on the night of his birth but on Epiphany, twelve days later.

When Mary was apprised of her role as mother of one who was to be the Saviour of mankind, she was not told that kings were soon to bring gifts to do him honor, and that 2000 years later people would exchange presents in his name.

Instead, the real meaning of the coming of the child was spelled out in terms of his mission to the world. The angel of annunciation said, "His name shall be called Immanuel, meaning 'God with us.' " This is the promise of a **"presence"** . . . the continuing, sustaining, self-disclosing reality of God. The central theme of the original Christmas story is the coming of one who gave those around him a vivid awareness of the presence of God in the midst of life.

How shall we celebrate this deep inner meaning of the first Christmas? By going to church . . . by lighting a candle . . . saying a mass . . . receiving communion? Perhaps! But far more important, we must become the embodiment of this sense of presence to the people around us.

Many are struggling with problem loads almost too heavy to carry without our encouragement . . . our communication of this sense of presence. Others are looking for ways to heal their hurts, to compensate for unfulfilled dreams, to find hope in their night of anguish and despair.

All who have found this presence can learn ways of communicating it to others in their need. By visibly demonstrating our Christian love, compassion, and concern . . . by showing that we know how they feel and what they are going through . . . we can help them know that our acceptance and understanding is their key to God's acceptance and understanding. This is what will enable them to become what they need to be.

The greatest **present** a person can give another is the communication of a sense of the presence of God.

Dates to Remember

Dec. 2-3 - Cornell Seed School, Cornell University, Ithaca, N.Y.

Dec. 3 - Nursery-Landscape Conference, Rutgers University, New Brunswick, N.J.

Dec. 3-6 - Sheepmen's Short Course, Cornell University, Ithaca, N.Y.

Dec. 7 - International Livestock Exposition, Chicago, Ill.

Dec. 8-12 - American Farm Bureau Federation's 50th anniversary meeting, Muehleback Hotel, Kansas City, Mo.

Dec. 8-12 - 34th Annual Convention, National Junior Horticultural Association, Atlanta, Ga.

Dec. 10-13 - American Society of Agricultural Engineers annual winter meeting, Sherman Hotel, Chicago, Ill.

Jan. 4-9 - New York State Nurserymen's Garden Living Industries Convention, Kiamisha Lake, N.Y.

Jan. 6-8 - New Jersey State Horticultural Society, Sheraton-Deauville Hotel, Atlantic City, N.J.

Jan. 8-9 - New England Fruit Growers Annual Winter Meeting and Trade Show, Highway Hotel, Atlantic City, N.J.

Jan. 8-10 - Annual Banquet New England Farm Electrification Institute, University of Vermont, Burlington, Vt.

Jan. 8-10 - 23rd Annual Northeastern Weed Control Conference, Hotel Commodore, New York, N.Y.

Jan.11 - New York State Beef Cattlemen's Association Annual Meeting, Diplomat Restaurant and Lounge, Utica, N.Y.

Jan. 13-15 - Cornell Agricultural Waste Management Conference, Hotel Syracuse, Syracuse, N.Y.

Jan. 13-17 - Pennsylvania Farm Show, Harrisburg, Pa.

Jan. 15 - New York State Agricultural Society, Albany, N.Y.

Jan. 20-24 - Beef Cattlemen's Short Course, Cornell University, Ithaca, N.Y.

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Here's a Christmas gift idea that will keep your whole family warm all winter. The Homelite XL-12 is a proven performer, with all of Homelite's outstanding professional features, and now you can purchase one with a Hard Trac bar at a new low price. For cutting firewood, repairing storm damage, clearing land, pruning, trimming.

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MF's Early Bird Promotion has begun. Now you can save up to $900 on the purchase of a Quick-Attach MF combine and corn head.

MF Quick-Attach. The quickest anywhere. So simple that after a few practice tries, one man can change from corn head to bean table in less than 5 minutes. The latches, locks and couplers are designed for the easiest possible fastening. Combine hydraulics do the lowering and lifting.

Massey-Ferguson has 17 different Quick-Attach corn head/combine combinations. One is just right for you.

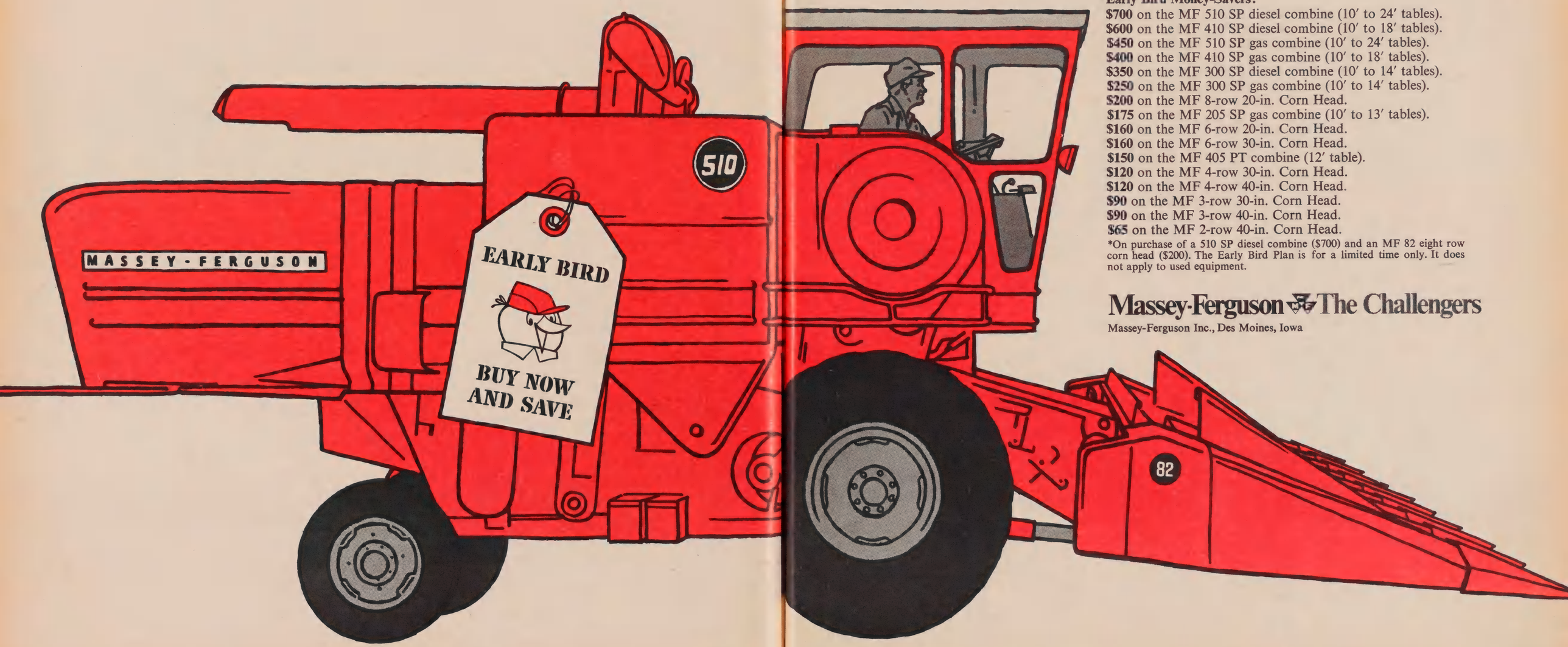
Early Bird Money-Savers:

$700 on the MF 510 SP diesel combine (10′ to 24′ tables).
$600 on the MF 410 SP diesel combine (10′ to 18′ tables).
$450 on the MF 510 SP gas combine (10′ to 24′ tables).
$400 on the MF 410 SP gas combine (10′ to 18′ tables).
$350 on the MF 300 SP diesel combine (10′ to 14′ tables).
$250 on the MF 300 SP gas combine (10′ to 14′ tables).
$200 on the MF 8-row 20-in. Corn Head.
$175 on the MF 205 SP gas combine (10′ to 13′ tables).
$160 on the MF 6-row 20-in. Corn Head.
$160 on the MF 6-row 30-in. Corn Head.
$150 on the MF 405 PT combine (12′ table).
$120 on the MF 4-row 30-in. Corn Head.
$120 on the MF 4-row 40-in. Corn Head.
$90 on the MF 3-row 30-in. Corn Head.
$90 on the MF 3-row 40-in. Corn Head.
$65 on the MF 2-row 40-in. Corn Head.

*On purchase of a 510 SP diesel combine ($700) and an MF 82 eight row corn head ($200). The Early Bird Plan is for a limited time only. It does not apply to used equipment.

Massey-Ferguson The Challengers

Massey-Ferguson Inc., Des Moines, Iowa





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Arthur Friedman in his egg room, where he does some grading and packaging for the retail and delivery route portion of his 20,000-bird enterprise.

HE MOLTS 'EM YOUNG

by Bob Cudworth

"I am convinced that molting our hens at 9 months, and then bringing them back into production after an 8-weeks period, was a good move for us this year. It probably wouldn't pay for many poultrymen to use this method, and maybe it wouldn't for us either in a year when egg prices were lower."

Ralph Friedman, a poultryman of Putnam Valley (Columbia County), N. Y., reported he had been interested in work done on the West Coast where birds were molted every six or nine months and then brought back into production . . . rather than replaced every year.

He consulted with Charles Ostrander, State Extension poultry specialist, and this was the plan developed for his 20,000-bird operation . . . part of which are in cages and part in floor flocks.

For his floor flocks, Ralph has a tiered roost arrangement with ¾ square feet of space per bird.

Part of the caged birds are in double-deck 12″×20″ cages, 4 birds per cage. The others are housed 24 birds to 3 ft.×4 ft. double-deck colony cages.

Birds that had been in production for nine months (they were at about 50% production at the time) were cut back to eight hours of light. After two weeks of this reduced light, water was restricted for 48 hours, and feed was restricted for 72 hours.

Under Ostrander's recommendations, birds were to be fed ⅔ of the amount they had been eating before molting. Ralph found that with the restricted light, the birds automatically ate about a third less feed anyway. He also switched from his regular laying ration to a pullet developer feed for the six-weeks period.

Recovery

After six weeks of restricted feeding, the birds were put back on full feeding of the laying ration, and the light jumped to 12 hours daily. He then increased the light 15 minutes weekly until the birds were back up to the full 16 hours of light.

The results were most encouraging. After the molting period, floor birds peaked at 75 percent production, and caged birds peaked at 77 percent. Mortality during the molting period did not exceed 1 percent a month.

"In the second laying period there was an improvement in shell quality compared to that just before birds were put into molt. The hens coming back into production ate more feed than new laying pullets would have . . . but there were more large eggs . . . and fewer smalls . . . than we would get from pullets.

"Since we sell some eggs at retail and to stores, restaurants, and other outlets, we have good markets for jumbo and extra large eggs. For someone selling only at wholesale, this would be no special advantage, and maybe a disadvantage in the larger eggs," noted Ralph.

"From what we have observed thus far it appears that the percent of lay will probably be in direct proportion to the way the birds were laying before being put into a molt. Of course, mortality can be a factor too . . . and we were fortunate in having only 1 percent per month," he stated.



Here's an airplane view of the facilities of Lewis County Heifers Inc., a dairy replacement corporation near Lowville, New York. Formed by five dairymen, it raises replacements for the herds of its owners, as well as for other farmers on contract. Heifers are accepted at 4 months of age, kept for 40 cents per day per heifer, plus 5 cents per pound of gain.

For more information, contact John E. Bohall, Lowville, New York 13367.



More fun to run

Here's the new snowmobile that brings more fun to the farm because it's more fun to run. Massey-Ferguson's new Ski Whiz. It's more fun because the seat is long enough to handle three adults comfortably. More fun because of its stability and low center of gravity. Because you can adjust the skis and track to snow conditions. Ski Whiz is built with the same ruggedness Massey-Ferguson engineers into all of its farm machines. Ski Whiz is perfect for winter chores around the farm. Come on in and look one over. Find out how easy it is to own. We'll help you make this winter more fun than ever.

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Massey-Ferguson Inc., Des Moines, Iowa

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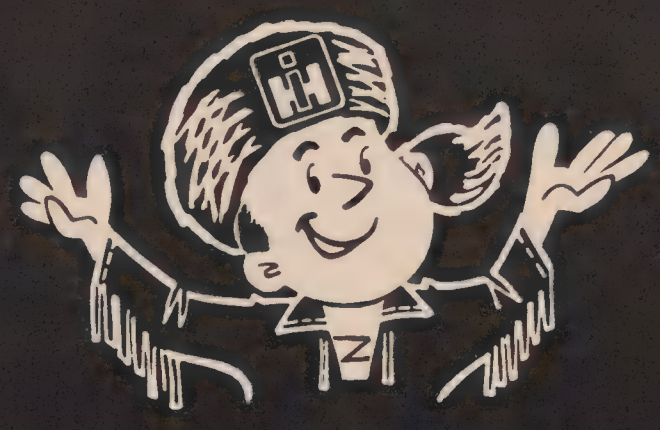
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Mrs. Wesley Rowe MAKES

DOUGHNUTS FROM 49 Grange counties were brought to Fredonia, New York, for the long-awaited finals in this year's baking contest, sponsored by American Agriculturist and New York State Grange. Three well qualified judges (Mrs. Mary Astry, Home Economics teacher at Fredonia High School, Miss Bonnie Lyerly, Chautauqua County Cooperative Extension Home Economist, and Mr. Joseph Workoff, owner of Glenora Donut Shops in Fredonia) worked all morning and into the afternoon to score the 49 entries and pick the 25 top winners.

After the judging was over, the suspense ended when sealed envelopes were opened, revealing the No. 1 winner as Mrs. Wesley Rowe, Route 1, Norwich, New York, a member of Norwich Township Grange. Visiting with Mrs. Rowe the next morning, I learned that she makes doughnuts quite often and made several batches before coming to State Grange. Mr. Rowe picked out the five doughnuts that made his wife the "champion Grange doughnut maker of New York State." The Rowes are active in church and Grange and, in partnership with their son, operate a large dairy farm.

Mrs. Rowe, of course, had her choice of the nine grand prizes and chose the "Jet-Fan" Convection Oven Electric Range, a gift from **Monarch Range Company.**



Pictured with Mrs. Agnes Barrett and Mrs. Augusta Chapman, co-directors of the Doughnut Contest, are the winners present at State Grange Session. Left to right are Mrs. Barrett, Mrs. Wesley Rowe, Mrs. Wilfred Miller, Mrs. Herbert Kampnich, Mrs. Marian Cross, Mr. Berton Weaver, Mrs. Marian Powers, Mr. John Heidenreich, Mrs. Grace Lighthall, and Mrs. Chapman.

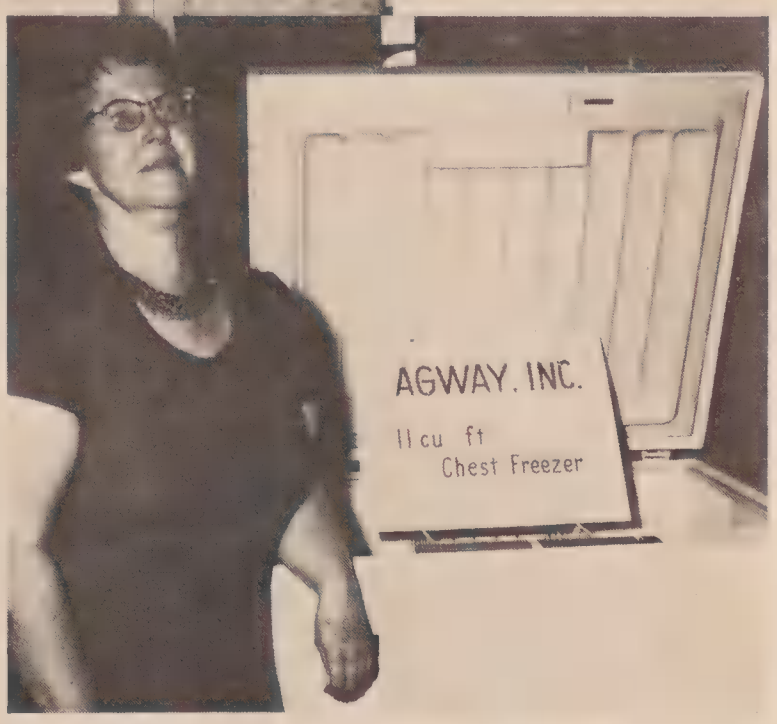
She also received a $50 U.S. Savings Bond from **International Milling Co., Inc.,** because she used Robin Hood Flour in her doughnuts, a Westinghouse Transistor Radio from **International Salt Company,** $20 in cash from American Agriculturist and $3 from New York State Grange, plus all the prizes awarded the top ten winners and listed later in this story.



Mrs. Rowe had her choice of the grand prizes and selected the "Jet-Fan" Convection Oven Monarch Electric Range, gift of Monarch Range Company.



Mrs. Herbert Kampnich, third-place winner, received the Singer Portable Sewing Machine from New York State Grange.



Second-place winner, Mrs. Wilfred Miller, chose as her grand prize the Unico Chest Freezer given by Agway, Inc.

Winning Recipe–Doughnut Contest

1 cup mashed potatoes
1 cup sugar
2 tablespoons butter
2 eggs, beaten
1 cup milk
4½ cups flour, sifted
1 teaspoon soda
2 teaspoons cream of tartar
½ teaspoon salt
1 teaspoon mace

Mash the potatoes and add sugar, butter and spices. Beat the eggs and add to the sugar mixture; add milk. Sift together the flour, soda, cream of tartar, and salt and add to the other ingredients. Mix well.

Put on floured board and knead into a ball. Roll out to ½ inch thickness and cut with floured doughnut cutter. Let stand about 5 minutes.

Fry in hot grease (375° to 400°). As soon as the doughnuts rise, turn over and brown well; then turn and brown other side. Carefully lift out with two-tined fork and drain on brown paper.

Editor's Note: Mrs. Wesley Rowe, R. D. 1, Norwich, New York, was the No. 1 winner in this year's American Agriculturist-New York State Grange Doughnut Contest. The above recipe is the one Mrs. Rowe used for her prize-winning doughnuts and is printed just as she gave it to us.

"Oh, my goodness! I didn't think my doughnuts were that good," said Mrs. Wilfred Miller when I called to tell her she was our No. 2 winner. Mrs. Miller must be an excellent all-round cook, for in 1964, she won first place in our Yeast Coffee Cake Contest.

Mrs. Miller chose the **Agway, Inc.** gift, a Chest Freezer with storage capacity of 385 pounds for her grand prize. She also received a Westinghouse Transistor Radio from **International Salt Company,** $18 in cash, and the miscellaneous prizes.

Mrs. Herbert Kampnich, third-place winner, belongs to Adirondack Grange in Lewis County. Luckily, she was visiting friends who lived fairly close to Fredonia, so she was able to come to State Grange Session and hear her name announced from the platform. Mrs. Kampnich took home the Singer Portable Sewing Machine given by New York State Grange and will receive $14 in cash.

Winner No. 4, Mrs. Marian Cross from nearby Cattaraugus County had just returned home from State Grange when I called her. She came back the next morning and chose the 48-piece set of Community Silver in "Silver Artistry" pattern and the beautiful chest that held the sil-

WINNING DOUGHNUTS!

by Augusta Chapman,
Home Editor



Winner No. 4, Mrs. Marian Cross, chose the set of Community Silver and Chest which were given by Oneida Ltd. Silversmiths.

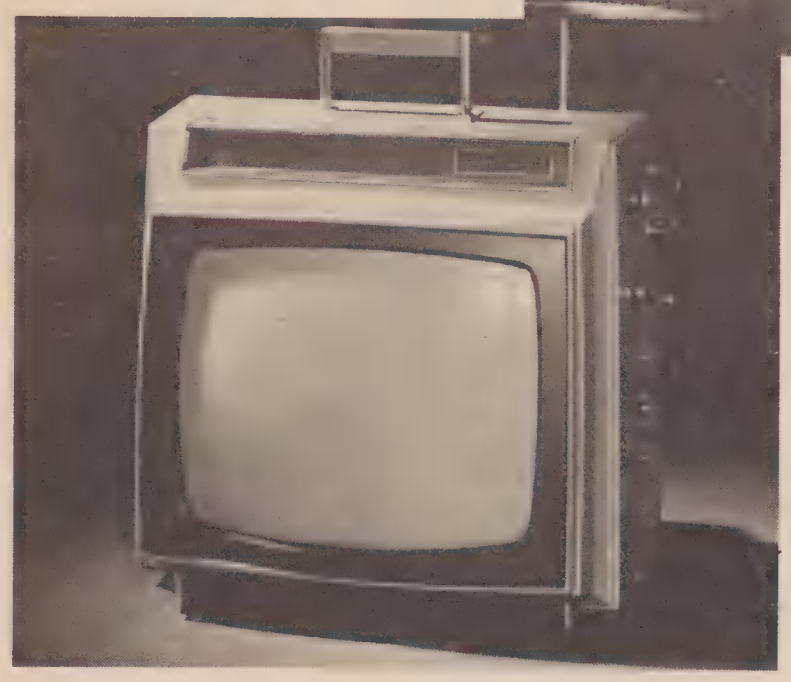
25 HIGH WINNERS

1. Mrs. Wesley Rowe, Norwich Township Grange, Chenango Co.
2. Mrs. Wilfred Miller, Pendleton Grange, Niagara Co.
3. Mrs. Herbert Kampnich, Adirondack Grange, Lewis Co.
4. Mrs. Marian Cross, Mansfield Grange, Cattaraugus Co.
5. Mrs. Floyd Stoddard, North Granville Grange, Washington Co.
6. Mrs. Addie Parker, Binghamton Grange, Broome Co.
7. Mrs. Carol Hall, Keshequa Grange, Livingston Co.
8. Miss Gladys Lyday, Honeoye Falls Grange, Monroe Co.
9. Mr. Berton Weaver, Barre Grange, Orleans Co.
10. Mrs. Roy Hoad, Newark Grange, Wayne Co.
11. Mrs. Victor Every, Jewett Grange, Greene Co.
12. Mrs. David Stewart Sr., Wawaka Grange, Delaware Co.
13. Mrs. Leo Garrett, South Trenton Grange, Oneida Co.
14. Mrs. Marian Powers, Warsaw Grange, Wyoming Co.
15. Mrs. Minnie Minekime, Lawtons Grange, Erie Co.
16. Mrs. Norma Soper, Reber Grange, Essex Co.
17. Mrs. Wilbur Forbes, Homer Grange, Cortland Co.
18. Mrs. Helene Lawrence, Windy Ridge Grange, Schoharie Co.
19. Mrs. Donald Burgess, Champion Grange, Jefferson Co.
20. Mr. John Heidenreich, Cicero Grange, Onondaga Co.
21. Mrs. Grace Lighthall, Otsquago Grange, Montgomery Co.
22. Mrs. Helen Douglas, Louisville Grange, Otsego Co.
23. Mrs. Marie Deinlein, Austerlitz Grange, Columbia Co.
24. Mrs. Grace Parish, DePeyster Grange, St. Lawrence Co.
25. Mrs. Julia Ormond, Kennedy Grange, Chautauqua Co.





Fifth-place winner, Mrs. Floyd Stoddard, chose the set of Syracuse China, gift of Farmers and Traders Life Insurance Co.





Mrs. Addie Parker, Winner No. 6, received the Singer Portable Television Set from New York State Grange.



Mrs. Carol Hall, 7th place winner, and the 4-piece Coffee Service she received from National Grange Mutual Insurance Co.



ver. This was given by **Oneida Ltd. Silversmiths.** She will receive $11 in cash.

Washington County's winner, Mrs. Floyd Stoddard, came in fifth and received her first choice of the grand prizes, the lovely set of Syracuse China in "Wedding Ring" pattern, awarded by **Farmers & Traders Life Insurance Co.,** plus $9 in cash. Mrs. Stoddard was unable to come to State Grange.

Winner No. 6 was Mrs. Addie Parker of Broome County. She is State Chaplain Bert Morse's mother-in-law, and he was proud to take her the Singer Portable Television Set, a gift from New York State Grange.

Coming in No. 7, was Mrs. Carol Hall from Livingston County. She won the 4-piece Community Silver Coffee Service which had been given by **National Grange Mutual Insurance Co.** Miss Gladys Lyday, winner from Monroe County, was winner No. 8 and received the Anscomatic 326 Camera Kit as a gift from **General Aniline & Film Corp.**

Both of the men who won their Pomona contests were among the top 25 winners in the state finals! Mr. Berton Weaver from Orleans County was declared the 9th place winner and took home the set of Carefree China in pretty "Harvest Gold" pattern, the grand prize given by **Syracuse China Corp.** Mr. John Heidenreich, the Onondaga Pomona winner, came in No. 20 at Fredonia.

Each of the 10 high state winners received the following prizes:

From **Curtice-Burns, Inc.:** A case of Blue Boy vegetables in Curtice-Burns' "white plate" lined cans and a case of mixed products of Ritter Brand merchandise.

From **Dairymen's League Coop. Assn., Inc.:** A Cheddar Treasure Chest Dairylea Cheese Assortment.

From **International Milling Co., Inc.:** A 25-lb. bag of Robin Hood Flour.

From **International Salt Company:** 6 packages of Sterling Table Salt.

From **Revere Copper and Brass Incorporated:** A 1-quart Revere Ware Saucepan.

Cash prizes consisted of a $3 entry prize from New York State Grange to each of the county winners entering the finals and $107 from American Agriculturist, distributed among the top 25 winners.

Mrs. Agnes Barrett of Whitesboro, Director of the State Grange Committee on Women's Activities, helped me direct the Doughnut Contest for the state. We were assisted by two other members of the state committee — Mrs. Miriam Howard of Phelps and Mrs. Bertha Coe from Cazenovia. Also helping, were nearly 1,000 other committee chairmen who conducted the contests in Subordinate and Pomona Granges.

Next year's American Agriculturist-Grange baking contest will feature yeast bread. In the past, whenever we've had a bread contest, there has seemed to be more interest than for any other item chosen, and we feel sure it will be the same way for our 1969 contest. We hope all Grange members, both men and women, will plan to enter. There's fun and excitement at each level in the contest, and who knows, you may be a state winner next October!



Competition was keen in the Doughnut Contest finals. Shown above, hard at work, are the three judges — Mr. Joseph Workoff, Mrs. Mary Astry and Miss Bonnie Lyerly.

LIVESTOCK



Technician Dale Harper removes wool easily by rolling his wrist along the skin. Photo: Courtesy USDA.

No Nicks-No Cuts – The Agricultural Research scientists at the USDA are experimenting with chemicals which when fed to sheep make it possible to chemically defleece the sheep. The chemicals interrupt cell growth in the bulb of each wool fiber, causing a ringlike constriction. This constriction moves up from the bulb of each wool fiber as it grows, and in six to seven days reaches a position just below the skin surface.

At that point the fiber breaks easily, and the whole fleece can be separated at the skinline, leaving the sheep completely bare.

Although sheep in test seemed unaffected by the complete lack of fleece, precautions were taken to keep them out of extreme weather. Wool has grown back normally in sheep defleeced since the trials began, and it has been found that defleecing can be delayed beyond the minimum of six to seven days after chemical treatment so that a short growth of new wool forms below the constriction point of the wool fibers. The fleece separates as easily as before, but the new coat does away with having to protect the sheep in extreme weather.

Further studies are necessary to determine whether chemical defleecing is economically practical, and whether it causes chemical residues in the meat, alters wool growth or quality, or harms fleeceless sheep exposed to heat or cold. But the scientists feel that chemical defleecing may help relieve the labor shortage and price squeeze now plaguing the sheep industry.

Cattlemen's School – Changes taking place in the industry, carcass evaluation, animal health, and over-all feeding and management are a few of the topics that will be given special emphasis at the 18th annual Beef Cattlemen's Short Course scheduled at Cornell University for January 20-24, 1969. Both purebred and commercial producers were considered when the program was prepared. Although special emphasis has been given to subjects of interest to people new in the cattle business, anyone interested in beef production should find the program worthwhile. Ladies are always welcome. So are "out-of-staters."

For copies of the program and additional information, get in touch with M. D. Lacy, Morrison Hall, Cornell University, Ithaca, N.Y. 14850.

Urea Premix – A new line of urea premixes is being marketed by Super Supplement, Inc., Commerce Tower, Kansas City, Missouri 64199. The process uses diatomaceous earth as a carrier for the urea, and combines these products to produce a prilled product that is then coated with molasses for greater palatability. Successful testing has involved 5000 head of cattle.

Adjusted – Baby pigs need time to adjust to weaning before they are booted out of the farrowing house into the cold, cruel feedlot, according to scientists at the Cargill-Nutrena Research farm. The value of providing an adjustment period was dramatized by a recent study during which Nutrena compared the weight gains of three groups of pigs that were weaned under different circumstances.

Group A was weaned at 16 days of age, and given a four-day adjustment period in the farrowing unit; group B was also weaned at 16 days, but was moved from the farrowing unit immediately; and group C was weaned at the more conventional age of 25 days and left in the unit for an additional four days.

When compared at 30 days of age, group A . . . the "adjusted" group . . . averaged 1.26 pounds per head more than group B. By 66 days, group A's advantage over group B had increased to 2.53 pounds, and by 135 days to 5.76 pounds.

Moreover group C . . . the conventionally-weaned group . . .averaged 4.53 pounds per head more than group A, and 5.79 pounds per head more than group B, when compared at 30 days. At 66 days, group C outstripped the others by 3.32 and 5.85 pounds per head respectively, and at 135 days by 4.74 and 10.5 pounds respectively.

All Corn – In recent research, Dr. Hugh Henderson of Michigan State found that choice slaughter cattle can be produced entirely on a ration of corn silage and protein supplement, with no added shelled corn. When corn is harvested and fed as shelled corn, only 50 to 60 percent of the crop's energy is used. Stalks, leaves, tassels, husks and cobs are the remaining 40 to 50 percent . . . and they're left in the field.

If shelled corn **is** added to the silage ration at a rate equal to one percent of the animal's body weight per day, then the rate of daily gain is boosted, and feeding time cut by 20 days . . . as compared to the all-silage ration.

However, the all-corn-silage ration should yield some 600 pounds of additional beef per acre of crop fed, Henderson points out. This will more than pay the additional labor and building costs of the 20-day-longer feeding period.

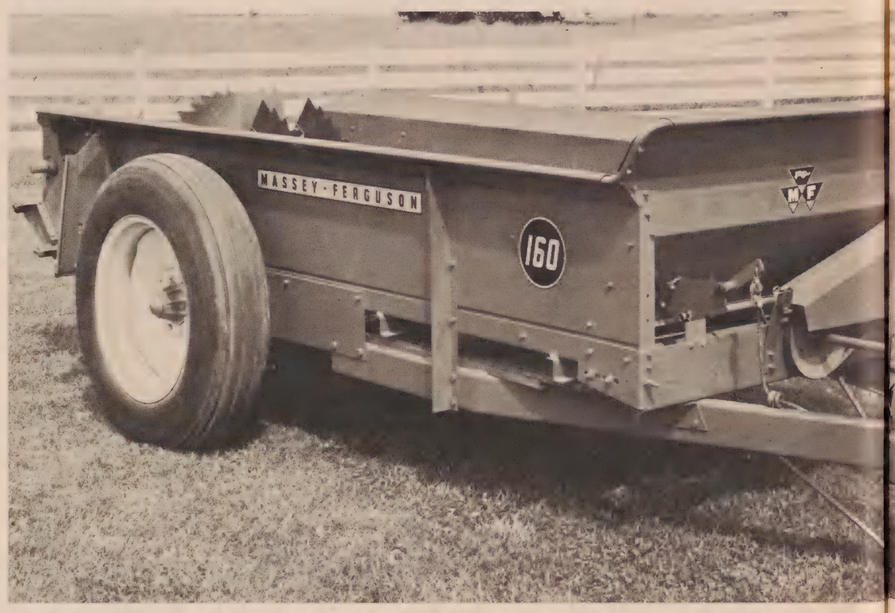
Henderson strongly recommends the addition of urea to all corn silage at silo filling time . . . 10 pounds per ton of 30 percent dry matter silage. This makes actual protein supplement unnecessary for meat animals.

Instead, a supplement of necessary ration additives similar to "MSU 9" should be fed at the rate of one pound per day, says Henderson. This supplement contains Vitamin A, calcium, phosphorus, trace minerals, salt, growth stimulants and sulfur, with shelled corn as a carrier.

If a cattle feeder is not feeding urea-treated corn silage, one pound of "MSU 74" supplement or equivalent per head should be fed daily, says Henderson. This supplement contains 74 percent protein and the additives mentioned previously.

To assure success with this or any beef cattle ration, adds Henderson, supplements should be thoroughly mixed with the entire ration in a horizontal mixer prior to each feeding. Self-unloading wagons do a fair job in this regard, but auger feeders do a very poor job of mixing, he reports.

How to get the industry's best spreader features for as low as $715.00*

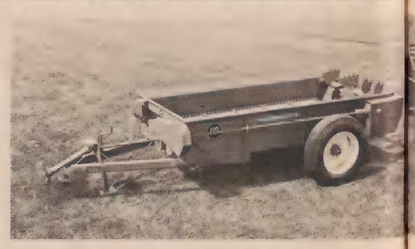


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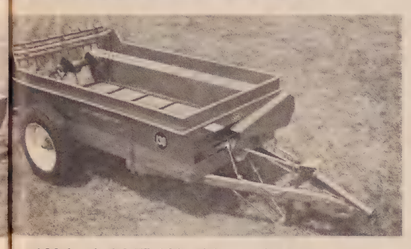


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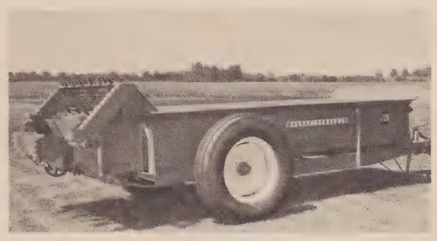
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ger 130 bushel MF 130 with two beaters. 30" wheels give you excellent flotation and ying capacity. It's the perfect spreader for ium-size herds.



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ey-Ferguson Inc., Des Moines, Iowa

ACRES OF CALVES

The Supreme Cattle Co., Trumansburg, New York, is raising hundreds of dairy calves at its facilities near Perry City, on route 227 west of Ithaca, New York.

Calves are purchased at auction markets, most of them around a week old. They're grouped by age, and started off in a well-ventilated barn where they are hand-fed in batches of four. This method of feeding allows a thorough "look-see" each day at each one, and a temperature check if things don't look so good.

The ventilating system moves air **above** the calves, but does not allow any drafts to blow **on** them. This is part of the health program that is the real stock-in-trade of the people running Supreme . . . because successfully raising large numbers of calves, assembled from many farms, is notoriously difficult. Bill Simpson and Bob Rector supervise the day-to-day operations; other investors in the corporation include several professional men from the Ithaca area.

Calves are sold at 250-300 pounds in weight for feeders . . . or are fed by Supreme to beef market weights. A few heifers are also sold for dairy purposes.

After spending 7 to 8 weeks in the "nursery" at the remodeled dairy barn, calves go outside in feeding lots where they are full-fed on high-moisture ground ear corn . . . combined with a protein supplement that brings the protein level to 14 percent. No roughage is fed at any time, except for the corn cob.

There are 600 acres in the farm involved, with 300 acres planted to corn in 1968.



Owner Dan Lufkin (left) and manager Francis Perry are proud recipients of plaques from the Edison Electric Institute, in connection with the Farm Better Electrically Program. They operate the Poverty Hollow Farm near Newton, Connecticut.

Visitors will see a high-producing 60-cow herd in a conventional barn.



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This plastic storage for silage at the Moore farm held 60 tons of second-cutting alfalfa when pictured . . . to which 120 to 140 tons of corn silage was later added.

PLASTIC SILO

George C. Moore, whose farm is located along Preemption Road near Geneva, New York, is using a plastic silo for the third year . . . to supplement existing tower silo storage space. Capacity is 200 tons of corn silage, and George reports no spoilage when pumped to a vacuum of 10 inches of mercury (gauge reading on pump).

Leaks

Leaks can develop from four sources:

1. Rodents — controlled by sprinkling poisoned grain (like that used in orchards) along edges of plastic.

2. Weaknesses and tears at folds caused by billowing in wind — prevented by using a net made of nylon stretched over the top and attached to weights such as railroad ties.

3. Puncture by plant stems — the squashing power of the air pressure is enormous (an 8-foot stack packed by a 4-plow tractor will shrink from 8 feet to 6 feet). Stems will make punctures under such conditions . . . they just have to be sealed with patching plastic.

4. Imperfect seal of top plastic to bottom sheet of material — a matter of proper adjustment, and simple to locate because of hissing sound of air.

Big Stack

The stack pictured has a bottom sheet measuring 28×85 feet, and a top sheet that is 40×100 feet . . . both polyethylene and 6 mils in thickness. In the two previous years, neither sheet has been reusable, but the plastic seal, pipe, and pump have been. Believing that the last three (costing $500) will last 10 years, George figures an annual cost (excluding interest) of $50 per year . . . plus $83 per year to purchase the plastic sheets . . . or $133 for a 200-ton storage.

The Moores feed 200 beef cattle with a system that also includes a big 20×60 tower Harvestore silo, plus a small one of the same brand. The 20×60 is filled 3.5 times a year with roughage . . . the latter is also filled 3.5 times a year with high-moisture grain corn.

The stack from the horizontal plastic silo is transferred in January or early February to the 20×60 Harvestore, involving 30 hours of tractor time . . . but it's a one-man job at a time of low labor demand. George figures a cost of $100 to move the stack . . . making a total of $233 for storing 200 tons of silage with practically no spoilage loss.

Good Quality

Furthermore, he cites the advantage of a high-quality mixture of excellent haylage and corn silage. The haylage, he reports, saves buying protein at a cost of six cents per head per day . . . a $12 per day saving, plus perhaps $25 saved in the baler twine that would be required if it were stored as hay. Furthermore, this storage is not subject to real estate taxes . . . and it allows a farmer to expand quickly his storage capacity.

George is enthusiastic about the stack of silage because it fits his total feeding system, and it has a part to play in increasing the recovery rate of TDN produced on the farm. That is, he calculates that his present storage and feeding practices have doubled within the last four years the efficiency rate of converting pounds of TDN to pounds of salable beef.

Catchy Weather

This year has been one of abundant crop growth, but one characterized by catchy weather. At the Moore place, first cutting of hay crops was completed by June 15, second cutting by August 10, and the third cutting didn't suffer from unpredictable weather.

The farm includes 200 acres (Honeoye and Ontario soils), with 175 tillable. Sixty acres are normally devoted to hay crops, 60 acres to corn, 25 to red kidney beans, 20 to wheat, and 10 acres pastured. About 270 feeder cattle are fattened each year. The haylage-high moisture corn ration finishes cattle without excess fat.

George comments that most of the beef is sold to area families and stored in their freezers. He says, "It's nice to have a product that somebody really wants."

In a world of imitation milk, surplus feed grains, and cholesterol, we can all say "Amen" to that! — *G.L.C.*

With Our ADVERTISERS



The Muir Hill 101 tractor is being distributed by Dick Brady Farm Tractor Sales, Fairview, Pennsylvania 16415. It features 4-wheel drive, eight forward speeds and two reverse speeds . . . as well as a number of the latest mechanical developments for efficient operation and operator convenience.



A grinder-mixer with the highest standard discharge pivot in the industry has been introduced by Massey-Ferguson Inc.

This new MF 15 Grinder-Mixer, with a 68-inch standard discharge pivot, clears high fences with ease and allows feeder filling without waste. Because of the machine's totally-enclosed transition, wind scattering and water collection are avoided.

The Model 3300 Powr-Set Case plow, available in 4, 5, 6, and 7-bottom sizes, allows the operator to continue his plowing while any one or all of the bottoms lift up and over obstructions. One bottom can clear a rock sticking up 5 inches above ground while other bottoms continue to plow 7 inches deep undisturbed. This 12 inches of protective clearance is the highest of any reset plow, says Case.





At Xochimilco, native Indians pole a flower-laden canoe close to a "gondola" canoe carrying visitors.

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Beautiful, sunny Mexico is the perfect setting for a wonderful spring vacation, and we invite you to visit this romantic land with us from **March 14 to April 1.** Before we even get to Mexico, though, there's a real treat in store for us—a visit to the fascinating city of New Orleans, where we'll stay in the heart of the French Quarter.

Places we'll visit on our way to Mexico City are the temples and sacred well at Chichen-Itza, the ruins of Uxmal, and Merida, capital of Yucatan State. There is so much to do and see at **Mexico City,** one of the loveliest and most exciting cities in the world. The Xochimilco Floating Gardens will enchant us, as we ride through the canals in native "gondolas." We'll watch a performance of the Mexican Folklore Ballet, attend the bullfights, and see all the highlights of the city, including the National Palace, Chapultepac Park and Castle, the ruins of Teotihuacan, Shrine of Guadalupe, Pyramids of the Sun and Moon, and University City.

Fortin is a tropical paradise of orchids, gardenias, and old haciendas. Towering above the flowering gardens is mighty snow-capped Mt. Orizaba, a striking contrast of snow and tropical foliage. From Fortin, we also take a full-day trip to **Veracruz** to take in all the local points of interest.

We'll visit the colonial town of Queretaro, San Miguel Allende, and Guanajuato, a former silver-mining center where pure Spanish colonial atmosphere is at its best. Also **Morelia** with its old-world charm and **Patzcuaro** from which we'll take a launch trip to the romantic, unspoiled "Fisherman's Isle" of Janitzio.

Taxco is a famous 16th century colonial city. Its silver mines were worked by the Aztecs for many centuries, and you'll want to shop here for some of the lovely silver articles made by modern Mexican craftsmen.

The exotic, fun-filled city of **Acapulco** comes next. Here, we'll sun, swim, shop, and take a yacht cruise around the beautiful harbor. **Cuernavaca,** city of Eternal Spring, is also an enchanting resort town, built in the days of Cortez and Maximilian.

Our Mexican Holiday has been arranged by the Travel Service Bureau of Needham, Mass., and like all American Agriculturist tours, practically everything is included in the price of your ticket. The only thing not included is a few meals while you are in Mexico City. You'll have absolutely no travel worries—nothing to do but follow our tour leader and enjoy yourself! Send today for the day-by-day itinerary.

Other Tours

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Our **Holiday in the Southwest** from January 10 to 29 includes Hollywood, Disneyland, San Diego, Tijuana, Phoenix, the Petrified Forest, Grand Canyon, Hoover Dam, Las Vegas, Death Valley, and San Francisco. (Please note the correct dates for our Southwest Holiday. The dates given in our November issue were wrong.)

Also, if you hurry it is still possible to join either or both of our **New Year's Fun Sprees** to New York City and a Caribbean Cruise aboard the SS Oceanic, visiting St. Thomas, Barbados, Grenada, Curacao, and Nassau. Fill out the coupon and mail it today.

Gordon Conklin, Editor
Box 370-T
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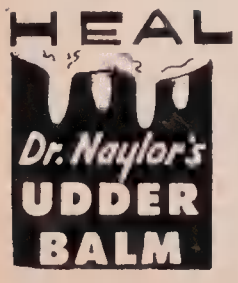
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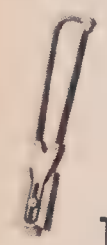
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Michigan State University researchers interviewed 62 Michigan dairymen, with 4,596 milking cows, to find out how they felt about direct service. A few of the dairymen interviewed used natural service before DS, but the majority (75 percent) had used an A.I. technician to breed their cows.

While DS cost per cow tended to decrease with larger herds, size of herd was not the only variable. Average herd size in the survey was 74 milking cows (ranged from 27-220) with 26 heifers bred each year.

Cost of liquid nitrogen container and refills was divided by number of cows serviced, so went down with increasing herd size. The total yearly cost of the refrigerant jug was $48, while liquid nitrogen refills ($10 every three weeks) were about $170 annually.

But the number of services per conception altered the cost figures, and this is a function of good herdsmanship. Range was 1.1 to 2.3 services per conception, average 1.6. This was combined with a range of semen costs from $2-$5 per ampule.

In one 100-cow herd, semen cost averaged $5 an ampule and it took 2.1 services per conception. Total yearly cost was $12.66 per cow in this large herd. Highest total cost for any herd was in a 27-cow herd where high jug maintenance cost ($8.04 per cow yearly) combined with semen costing $3.25 per ampule and two services per conception for a total cost of $14.54 per animal.

But the cows in one 112-cow herd were bred for a total cost of only $4.56 per cow.

Average semen cost for farmers interviewed was $3 per ampule, with an average 1.6 services per conception. Refrigerant jug maintenance cost must be less than $2.20 per cow per year to get cows in calf for less than the usual $7 breeding fee for A.I., the animal scientists suggested.

LIBERAL INSPECTORS

Remember when every milk inspector was considered to be an S.O.B. masquerading as a human being? Well sir, a recent study by the New York State Department of Agriculture and Markets indicates that many milk inspectors are being too easy on milk producers!

Modified Whiteside tests were conducted by the Department on milk from 1451 New York State producers during the summer of 1967. The purpose was to determine the incidence of abnormal milk, and to compare Whiteside test results found by industry with those recorded by inspectors from the Department. The test results were recorded as negative, trace, +1, +2 or +3 and measure ascending degrees of abnormality, with negative indicating none.

Sanitary Codes

New York State and New York City sanitary codes were amended on October 1, 1965, adopting the use of this test on a monthly basis. Processors are required to conduct this test monthly on each producer's milk and notify the producer if the test shows evidence of abnormal milk.

Sixty-five producers (4.5 percent) surveyed had **no record** of a previous plant Whiteside test! Division of Milk Control inspectors found the milk from 359 producers (24.7 percent) in the sample to have a high Whiteside reaction (+2 or +3). Plant inspectors, on the other hand, found the milk from only 136 (9.3 percent) of these same producers to have a high reaction. Division of Milk Control inspectors found the incidence of +2 or +3 Whiteside reaction to be 164 percent higher than did plant inspectors!

Division of Milk Control inspectors found the milk from 426 (29.4 percent) to have a negative Whiteside reaction, but plant inspectors reported 638 producers (44 percent) in this category.

As a result of these findings, the New York State Mastitis Council has proposed that the abnormal milk enforcement program be transferred from the State Health Department to the Division of Milk Control, New York State Department of Agriculture and Markets, and that a procedure of centralized laboratory testing be established in lieu of the present local milk plant testing.

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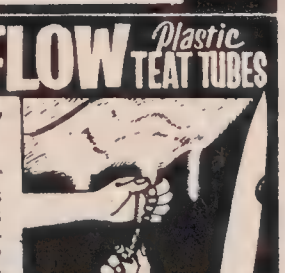


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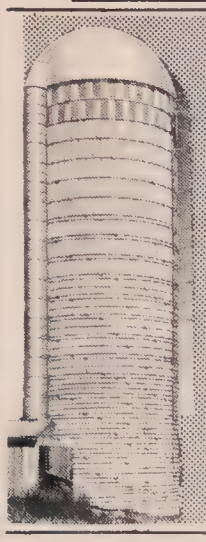
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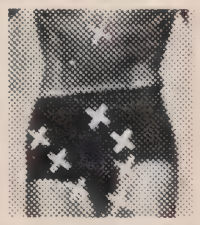
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Favorite Christmas Fruit Cakes

by Alberta Shackelton



Photo: California Raisin Advisory Board

Each year in many homes, baking fruit cakes is part of the fun of getting ready for Christmas. They will keep for months in the freezer or refrigerator and, of course, make wonderful gifts.

FRUIT CAKES need time to "age" and allow a blending of flavors, so plan to make yours early. You will undoubtedly want to make extra cakes, some to be gayly wrapped as "Merry Christmas" gifts and some to be served warm with a tasty sauce for winter desserts.

Almost any type container can be used for baking fruit cakes. Whenever possible, line pans (except glass containers) with greased heavy or double thickness waxed paper.

Mixing the fruit-nut mixture with a small amount of the sifted dry ingredients insures even distribution of fruit in the cake. Cakes may be decorated before or after baking. I like to bake them first, then glaze, decorate, and top glaze, as suggested in recipes below.

Use a slow oven for baking fruit cakes—275° to 300° or 325°. Place pans in oven to allow for free circulation of air around them. A pan of water placed on oven bottom or lower rack will keep cakes moist. Batters rich in fruit may be steamed for 2 hours and then baking completed in the oven.

Partially cool fruit cakes in pan, then turn out and cool thoroughly before wrapping in foil or plastic wrap. Store in airtight containers in cool place, or cakes may be kept in freezer. Allow cakes to mellow for several weeks and chill for easy slicing.

The following recipes offer you choices for several different fruit cakes. Two good Ithaca, New York, friends, Mrs. John M. Liddell (Isa) who is assistant to **American Agriculturist's** Editor and Mrs. Charles Voss (Carrie), share their choice recipes with us.

ISA'S WHITE FRUIT CAKE

- 1 cup butter
- 2 cups sugar
- 5 eggs
- 3 cups all-purpose flour
- 1½ teaspoons baking powder
- ½ teaspoon salt
- 1 cup candied cherries cut in halves
- 1 cup candied pineapple, cut in pieces size of almond
- 2 cups drained watermelon pickle cut in pieces size of almond
- 1½ cups coarsely broken pecans
- 1½ cups whole filberts
- ¾ cup blanched almonds cut in thick lengthwise slices
- 2 cups golden raisins
- ½ cup cooking sherry

Cream butter until soft. Gradually add the sugar and cream together until mixture is light and fluffy. Add eggs one at a time, beating well after each addition.

Combine all fruits and nuts and mix in about ½ cup of the sifted dry ingredients. Stir remainder of flour mixture and cooking sherry alternately into the creamed butter-sugar-egg mixture. Mix in floured fruit and nut mixture thoroughly.

Place equal portions of batter in two loaf pans, 9×5×3 inches, which have been lined with greased wax paper and press mixture down gently. Bake in a slow oven (300°) about 2 hours, or until cake tester or toothpick inserted in center of cake comes out clean.

Cool, remove from pan, and peel off paper. Wrap in foil and store in an airtight container. Age for about a month before serving. Cake may be sprinkled lightly every week with cooking sherry. Keeps for months in refrigerator or freezer.

LIGHT FRUIT CAKE
(Pound Cake Type)

- 1 cup butter
- 2 cups sugar
- 4 eggs, separated
- 1 teaspoon vanilla
- 1 teaspoon lemon extract
- 3 cups all-purpose flour
- 2 teaspoons baking powder
- 1 cup milk
- 1 cup golden raisins
- ½ pound mixed candied fruit, cut medium fine
- ½ cup candied cherries, cut crosswise
- ½ cup shredded coconut
- 3 slices candied pineapple, slivered
- 1 cup blanched almond halves or pecan halves

Cream butter and sugar until light and fluffy. Add egg yolks and mix well. Stir in vanilla and lemon extracts. Sift dry ingredients and mix about ⅓ with the combined fruit, nuts and coconut. Add remainder of dry ingredients alternately with the milk to the butter-sugar mixture. Add floured fruits and nuts and mix well. Fold in stiffly beaten egg whites.

Pour into a deep 9-inch tube pan, greased and lined with waxed paper. Bake in a slow oven (275°) 1½ to 2 hours or until cake tests done. Cool, remove from pan, and peel off paper. If you wish, batter may be baked in small loaf tins.

While cake is baking, make glaze by bringing to a boil ½ cup light corn sirup and ½ cup water; let cool. While cake is still warm, spread glaze on top and decorate with split almonds or pecan halves, candied cherries, and citron slices. Recipe makes 4 pounds.

GOLDEN FRUIT CAKE

- 1 cup butter
- 1 cup sugar
- 1 teaspoon almond flavoring
- 1 teaspoon vanilla extract
- 5 eggs
- 2 cups all-purpose flour
- 1½ teaspoons baking powder
- 1 pound mixed diced candied fruits
- ½ package light raisins
- ½ pound dates, cut coarsely
- ¼ pound apricots, cut coarsely
- ½ pound blanched almonds, cut lengthwise in thirds or shredded
- ½ pound flaked coconut
- 1 cup finely cut canned pineapple slices
- ½ cup pineapple or orange juice

Cream butter and sugar thoroughly and add flavorings. Add eggs, one at a time, beating well after each addition. Sift together the dry ingredients and combine about ⅓ with the combined fruits, almonds and coconut, mixing lightly with tips of fingers. Stir remainder of the dry ingredients into butter-sugar-egg mixture, alternating with fruit juice; mix well. Add the floured fruit mixture and stir until well mixed.

Pour batter into a tube pan about 10×5×4 inches which has been lined with double thickness of waxed paper, or into two lined 8 or 9-inch bread pans, filling about ¾ full. Bake in a slow oven (275°) about 2½ hours, or until cake tests done. Place a pan of water on bottom or lower shelf of oven during baking. Makes 4 to 5 pounds of cake. Glaze as directed in recipe for Light Fruit Cake.

DARK FRUIT CAKE

- 1 pound shortening (2 cups)
- 4 cups light brown sugar
- 12 eggs
- 4 cups flour
- 2 teaspoons salt
- 2 teaspoons baking powder
- 2 teaspoons cinnamon
- 1 teaspoon nutmeg
- 1 teaspoon allspice
- ½ teaspoon cloves
- 1 package seeded raisins, halved.
- 1 package seedless raisins or currants
- 2 pounds candied fruit, coarsely cut
- 1 pound pitted dates, halved lengthwise
- ½ pound walnut meats, coarsely cut
- ½ cup cider or fruit juice

Cream together thoroughly the shortening and brown sugar. Add the eggs, two at a time, beating well after each addition. Sift together the dry ingredients. Combine about ½ the sifted dry ingredients with the combined fruits and nuts, mixing well with the finger tips. Stir the remainder into the shortening-sugar-egg mixture. Stir in alternately the floured fruit and nuts with cider or fruit juice. Mix well.

Place in pans of desired size which have been lined with double thickness waxed paper and fill ¾ full. Smooth over tops lightly. Bake in a slow oven (300°) about 3 hours, or until they test done. Keep a pan of water on lower oven shelf during baking.

Cool slightly, remove from pans, and while still warm, brush tops with glaze made by combining ½ cup brown sugar, ⅓ cup light corn sirup, and ⅓ cup water and boiling about 5 minutes. Then stir in 2 tablespoons lemon juice. Decorate with whole almonds and candied cherries and brush again with glaze. Cool thoroughly and wrap tightly in Saran wrap for storage. Makes about 10 pounds.

CARRIE'S FAVORITE FRUIT CAKE

- ½ cup butter (1 stick)
- ¾ cup sugar
- 1⅓ cups all-purpose flour
- 1 teaspoon baking powder
- ½ teaspoon salt
- 1 teaspoon vanilla
- 1½ cups golden raisins
- ¼ pound slivered citron
- ¼ pound chopped candied orange peel
- ¼ pound candied red and green cherries, cut crosswise
- ¼ pound slivered candied green pineapple slices
- 1 cup flaked coconut
- 1 cup slivered blanched almonds
- ⅔ cup egg whites, beaten stiff (4 to 5)

Combine butter, sugar and about half of the sifted dry ingredients; blend with pastry blender or finger tips until thoroughly mixed. Add vanilla. With finger tips, thoroughly mix remainder of the flour mixture with the combined fruits, coconut and nuts; then stir into the butter-sugar-flour mixture, mixing well. Fold in the stiffly beaten egg whites.

Place in a small tube pan or bread pans which have been lined with greased double thickness waxed paper. Bake in a slow oven (300°) 1½ to 2 hours, depending on size of pans, or until a tester inserted in the middle comes out clean. Do not overbake. Makes about 3 pounds.

OUTDOOR GIFTS for Christmas

by Nenetzin R. White

GIFT GIVING seems to be uppermost in all our minds at this time of year. Those of us who are fortunate enough to live in the country have so much to offer our city friends that gifts should not be a problem. It isn't necessary to spend a lot of money to make people happy. We all know it's the thought behind the gift that is important, and here are some ideas for wonderful and different gifts.

If you have woods or a plantation of evergreens, a Christmas tree makes a great gift; or better yet, invite your friends to come to your place and cut their own tree. This will be a memorable experience for everyone. If this isn't feasible, a bunch of nice fresh evergreen boughs and a few cones will give a lot of Christmas spirit to a city house or apartment.

With time available, you might make a wreath or door swag for your friends. The woods have many nice berries that can be added to any of these. I am thinking particularly of Black Alder or Winterberry which is a deciduous holly, but with the same beautiful berries as evergreen holly. This grows in lowlands or slightly swampy areas.

A terrarium will delight children, and adults too, all the rest of the winter. If you don't own any woodlands, I'll just bet a neighbor who does would let you dig a few tiny ferns, some partridge berry, wintergreen, dwarf wild flowers, mosses, etc. With a little woods dirt, a few small stones, and perhaps some tiny pieces of wood, these can be landscapes unto themselves.

If your own children are old enough, they will enjoy helping make a terrarium. They can also make strings of popcorn or berries and chains made from craft paper, all of which are old fashioned and lovely.

Did you grow any sunflowers this year? A few sunflower heads make birds think even city feeders are for them! A little woodsy, covered platform may start a whole family on a bird-feeding hobby. Nice logs for a fireplace are very hard to find in most cities. Just don't put too many in your car or station wagon; we had a friend once who blew two tires on his car by trying to carry too much wood. Unusual seed pods are treasured by flower arrangers, as are pieces of different woods, stones and bark.

Purchased Gifts

If you decide to buy gifts for gardener friends, perhaps gift certificates are the answer. Most nurseries will give you a certificate for a specific plant or plants, or one for any set amount of money.

Good pruners, stainless steel trowels, hedge shears, fertilizer spreaders, and the like are always welcome. When we were first married, my Mother asked Phil what he would like for Christmas. His answer was, "You know what I would really like is a good wheelbarrow." Well, Mother moved fast and got him a beautiful pneumatic-tired wheelbarrow — they were just coming on the market then. He remembers the gift, with its big red bow, over most of the others he has received through the intervening years!

Commercial bird feeders are many and varied . . . and mostly good. Bird houses, especially martin houses, will add beauty to any grounds, give pleasure, and help to keep the insect population under control.

If you want to spend more money, pieces of power equipment are always welcome — snow blowers, mowers, tractors, etc. For really elaborate grounds, there is usually the ideal spot for a good sundial, Japanese lanterns, hobby greenhouses, pools or fountains.

And last, but not least, give a few treasured seeds from your garden, or a packet or two that you particularly like and that your friends may never have tried. I hope you enjoy getting ready for Christmas this year.

FOLLOWERS OF THE STAR

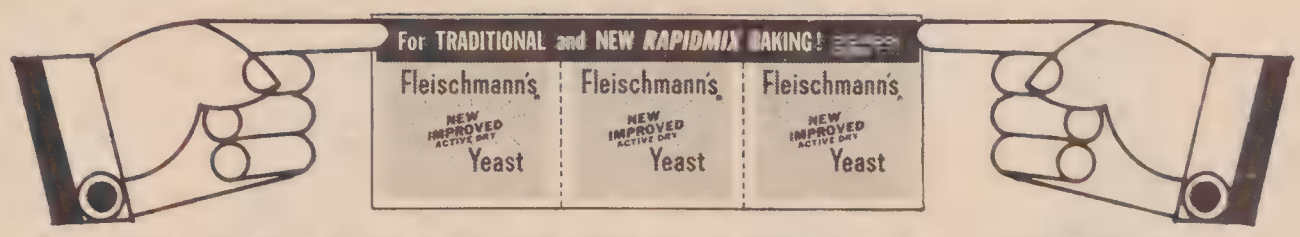
by Roy Z. Kemp

The wise men numbered three upon that night
Of glory long ago. They traveled far
With dauntless faith, with courage and with hope,
To find the Babe, led by His shining star.

Today, there still are few with faith and hope
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What's Your Hobby?

Hobby letters from our readers

Many Collections

My hobbies are collecting all kinds of dishes, cups, knick-knacks, salt and pepper shakers — and just recently I started collecting bottles of all shapes, sizes, and colors. I also have a stamp and coil collection. Would like to hear from other collectors. — *Mrs. Jeanne Thibodeau, R.D., Alfred, Maine.*

Makes Doll Furniture

I have many hobbies, but my latest and most enjoyable one is making doll furniture from plastic tomato baskets. I am making them now to sell in a church bazaar and later will make them to give neighborhood children for Christmas.

Other materials I use are buttons, macaroni, bottle caps, modeling clay, odds and ends of all kinds of materials, lace, etc. Patience and imagination are needed, but it's lots of fun. — *Mrs. Harriette W. Kenney, Mt. View Drive, Hill, N.H. 03243.*

Old Phonographs

My hobby is collecting "crank-up" phonographs and old records. I have many of the early types that were made to play cylinder records, some with large wooden or metal horns. Part of the fun of my hobby is repairing these old machines to get them in working order. I have more than 4,000 records that date from 1903. — *David R. Elliston, Halsey Lane, Bridgehampton, L.I., New York.*

Letter Enclosures

My hobby is mounting and framing pictures, poems, and readings to enclose in letters. Most of these are taken from magazines and newspapers.

The picture is mounted and framed on thin cardboard, and on the back I type a verse which is interesting. — *Phil Schmitt, 9312 85th Ave., Woodhaven, L.I., New York 11421.*

Worthwhile Hobby

Our hobby is collecting both old and new Christian books. Then after enjoying the books ourselves, we let others read them. We have been lending our books for several years and have never lost one yet!

We find a great demand for good Christian books and because of the cost, most people cannot afford a large library. — *Mrs. Ruth E. Kemrer, 129 W. Water St., Muncy, Pa.*

Collects Rocks and Shells

My favorite hobby is collecting stones, minerals and shells. I have shells and stones from Kennebunkport, Maine; Indian relics from Mississippi, "thunder eggs" from Oregon, arrowheads from Washington, and shells from Florida.

During World War II, stones and shells came from Christmas Island and from Carthage, North Africa. The Korean War brought coral from Wake Island and stones from Korea. Some I got by exchanging with other collectors, and I bought a few. — **Mrs. Elmer Northrop, R. D. 1, Delhi, N.Y.**

Hobby Letters — Her Hobby

My time is limited, and I never enjoy the hobby write-ups as I'd like to. So I have cut them out and put them in a book. I have more than a hundred, and there are no two alike. If I am low on ideas or food for thought, this is the book I read. — **Mrs. Edward Barrus, 190 Baldwin St., Leicester, Mass.**

Traces Genealogy

My hobby is tracing my husband's family tree. His great grandfather, John Zhe (or Zeh or Zee) came from Holland in the early 1800's, settled in Berne, New York, and was married to Clarissa Brots.

He had nine sons: Abe, Fred, Nicholas, David, Christopher, John, Jake, Storm, and Holmes. We only know the whereabouts of descendants of Nicholas and Storm. I would like to correspond with anyone having information regarding the other seven sons. — **Mrs. Burton H. Zhe, 308 Kings Rd., Schenectady, N. Y. 12304.**

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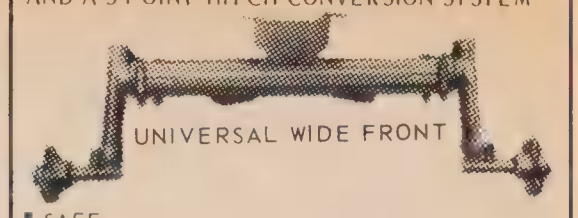
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Ed Eastman's Page

THE NEW ENGLAND IDEA

Beginning with the August issue, each month I have been showing how the settlers of New England developed and followed a plan that made them one of the greatest people on earth. This plan, called the New England Idea, became an important part of the foundations on which our ancestors built America.

The planks of this platform included:

Respect for Law.
Sanctity of the Home.
Respect for Work.
Respect for Education.
Respect for Man and God.

Unfortunately, America is now in a bad way, and much of her trouble is the failure of the country and the people themselves to follow the great truths of the New England Idea.

Because of their great importance I suggest that you carefully reread and get your children to reread the discussions of the truths described on this page in the August, September, October and November issues. Possibly you may want to get your school children to take them to school for discussion in social science classes.

The last and most important planks in the New England Idea are Reverence for God and for Man discussed on this page.

REVERENCE FOR GOD AND MAN

Reverence for God means reverence for all life including reverence for man himself. The New Englander's reverence for God made all the other principles in the idea work. Almost all the settlers of America were farmers, and had many evidences of God's work in nature around them all of the time. Personally I don't see how a man with any soul can look at the stars on a clear night without a feeling of awe and the greatness of God who created and manages them. Not only does one see the few stars even with our biggest telescopes, but he knows that they stretch on and on in countless numbers to no man knows where.

Wherever you look, whether at the insect world, at the birds of the air, the fish of the sea, or the animals that run upon the land, it is always the same, the Creator's hand is evident everywhere. Not only did He start all life on this and other planets but He established laws to govern His creation.

God is dead? What nonsense! Let Him lift His guiding hand for one instant and everything would go to smash.

There is comfort, if we will use it, in the knowledge that the spirit of God is in us and all around us working every second on His Great Plan. Being human and finite we do not know everything in His infinite plan. We only know that God takes note even of the sparrow's fall, and that He is always with us now and forever. We do know that if we will follow the principles of the New England Idea, the greatest of which is Reverence for God, everything will come out all right either here or in the life which follows this one.

Personally I get great comfort from thinking of God as a kindly father. Just as a good earthly father knows what is best for his little child, so does God know what is best for me, whether I understand it or agree with it or not. I can see and understand only a small part of the Great Road, but God sees and understands everything, everywhere, forever. Of course, therefore, His judgment is better than mine, and I will put my hand in His and let Him lead me where He will.

WHY NOT?

For more than fifty years I have been urging dairymen to grow more alfalfa. Some progress has been made, but it has been discouragingly slow.

Except for silage corn, alfalfa will grow more total digestible nutrients and produce more protein than any other forage crop, thus cutting down the grain bills. Under right conditions, alfalfa will produce the astounding yields of six or seven tons per acre. Not many acres are needed to produce the dry matter for a large dairy.

Of course, alfalfa production has its problems . . . so does anything worthwhile. Alfalfa won't do well on acid soils, but this can be overcome by heavy applications of lime. The alfalfa weevil is a bad pest, but can be controlled.

One farmer told me that he didn't want to grow alfalfa because it produced more hay than he wanted to bother with. This reminded me of the Vermont storekeeper who was playing checkers with a crony in the back room of the store. The bell over the front door of the store rang announcing the arrival of a customer. The crony said, "You have a customer up front."

"Well, keep still" said the storekeeper, "keep still and maybe he will go away!"

WHICH SHALL IT BE?

Eddy Rickenbacker, the famous flying ace, tells in his autobiography of his experience of flying very low over the armies in France at the time peace was declared at the end of World War I. At one moment the Allies and the Germans were firing at each other, filled with hate and the deadly intent to kill. Then they got the word of the armistice, threw their arms down and rushed toward each other, shouting and jumping up and down and throwing their arms around each other in mighty hugs in celebration that the war was over. In the time of minutes hate had turned into love.

There are always two tremendous forces at loose in the world, hate and love. It is awful that at the present time hate seems to have the upper hand. Hate is expressed in riots and demonstrations, racial troubles, in controversy, in crime . . . the worst this country has ever seen, in marriages . . . three-fourths of which fail . . . and in war.

All of this demonstrated hate is completely contrary to the teachings of Jesus, the Man of peace, whose birthday we celebrate at Christmas time. If this nation is to endure, we must reverse this awful trend of hate.

What better time than now at this Christmas and New Year for each of us to resolve to do more in demonstrating our love right where we are, love in the family, in the church, in our organizations and associations, in the community . . . **everywhere** where we contact our fellow man. Which shall it be . . . Love or Hate?

HER FIRST FAN LETTER

Writing my book, "Journey to Day Before Yesterday" has been one of the biggest and happiest events in my whole life, because it is bringing happiness to thousands of readers.

Because nearly every mail brings wonderful letters from you about this book, I feel justified in calling it to the attention of those of you who have not seen it.

The letters come from readers everywhere, and from young people as well as from old. For example, here is a letter from Mrs. Sally Milks, a young housewife:

"I gave a copy of your book, 'Journey to Day Before Yesterday' to my husband for his birthday. When it came, I just had to read it. I can't begin to tell you what a truly great book I think it is.

"I am only thirty but when I was a child my grandfather lived only a short distance away, and I remember so many things you tell about in your book.

"My sister and I went to a country school and attended a country church. I feel sorry for my own five children because their lives are geared to such a fast pace of living.

"I want to thank you for the moments of happiness I have had in remembering the things you describe so clearly."

Mrs. George Knapp from New Jersey writes:

"Your book, 'Journey to Day Before Yesterday' has been thoroughly enjoyed. I have enjoyed many books, but this is my first fan letter. No pages I have ever read could be more in tune with my growing-up years than they are in your book, even if I am not in your generation.".

The book will please every member of the family and make a wonderful birthday or holiday present. To get a copy write to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York 14850. The price is $7.30 prepaid.

EASTMAN'S CHESTNUT

A prominent judge had a relative who had gone to the mountains of Colorado to restore her health. Unfortunately, she was not successful, so it became the responsibility of the judge to go to Colorado and bring the body home.

After making all the necessary arrangements for the shipment in the baggage car, the judge retired to his berth in the sleeper. His naturally-quick temper was not helped any by a poor night's rest.

On reaching his destination, the judge went to the depot baggage station to claim the body, but the agent told him that no body had arrived. In a rage the judge rushed into the telegraph office, wrote a telegram, and shoved it through the window to the astonished operator. The telegram read:

"Where in h--- is my mother-in-law?"

SERVICE BUREAU

For The Northeast Farmer

by M. A. Parsons

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mr. William M. Winslow, Preble $ 3.01
(refund on book)
Miss Kathryn Canevari, Millerton 7.45
(down payment refund)
Mr. Leslie J. Schorge, Boonville 5.98
(refund on roses)
Mr. Willett Marshall, Ancramdale 10.00
(refund on subscription)
Mr. Dean F. Klett, Owego 290.00
(down payment refund)
Mr. Rudolph Korbel, Newfield 84.00
(damage payment)

PENNSYLVANIA

Mr. William Rigby, Spartansburg 8.92
(refund of balance)
Mrs. Charles C. Chubb, Halifax 6.99
(refund on order)

MAINE

Mr. L. A. Burr, Gray 12.33
(refund on merchandise)

NEW HAMPSHIRE

Mrs. Harry Perry, Rochester 6.95
(refund on order)

ALMOST 65?

To be covered by Medicare beginning with the month you become 65 you should enroll within the three-month period before you reach 65. Even if you plan to keep working you should file your social security application to become eligible for full Medicare protection as soon as you are 65. Also, it is possible in some cases to receive benefits for at least part of the year even when you work full-time all year.

When you apply for your social security benefits, you should take your social security card, birth certificate or other evidence of your age, and, if available, evidence of your total earnings for your most recent year of work. If you do not have all of these documents, however, do not delay filing your application. You can submit any additional evidence that may be needed after the claim is made.

If you cannot make a visit to your local social security office, call them and see what arrangements you can make. They will also be able to help with any questions you may have.

Social security beneficiaries who are already receiving reduced Old-Age, Survivors or Disability benefits before age 65 will receive a prepunched card in the mail during the three month period before their 65th birthday. This card should be completed, signed and returned before your birthday, and you will not have to visit the social security office unless no card is received or you have questions.

It is possible to receive monthly retirement benefits from social security as early as age 62. The benefits, however, will be reduced.

NEW STATUTE

"A letter came here today from this company addressed to my grandson, who does not even live here. It contained some of the rottenest pornography I have ever seen. I have mailed the contents to the Postmaster.

"Perhaps a word in your paper may help other young men to avoid such things. It came unsolicited, and I don't know where they got the address."

Unfortunately, many companies sell their mailing lists to outfits like this, and many such letters are addressed to children.

Recently New York State Attorney General Lefkowitz, citing a shocking increase in the mailing of circulars advertising pornographic material for sale, called attention to a new federal statute designed to prevent mailing of such material to families throughout the country.

The Attorney General said that the new federal statute provides that any family that receives such advertising may ask their local postmaster to curb the receipt of such mail from the sender.

When such a request is received by the postmaster, the Post Office Department directs a "prohibitory order" to the sender, ordering him to stop any further mailing of such material to the complaining family. The order becomes effective 30 days after the sender's receipt of the order.

If the sender violates the order by continuing to send such material to the complaining family, the Postmaster General may ask the U.S. Attorney General to bring an action in federal court directing compliance. Failure to observe the order may be punishable by a fine or imprisonment.

NO OBLIGATION

This time of year the mails are crowded with unordered merchandise of all kinds. Under the New York State law, which became effective September 1, 1968, unordered merchandise received by New York State residents may be disposed of in any manner with no obligation to pay for it.

ADDRESSES WANTED

Lamar Sellers, formerly of Sussex, N. J.

* * *

Descendants of Dager or Culp families of Barren Hill, Pa.

* * *

Mrs. Tom Sauyer whose maiden name was Ruth Rand. Last known address was Mt. Vernon, Maine.

* * *

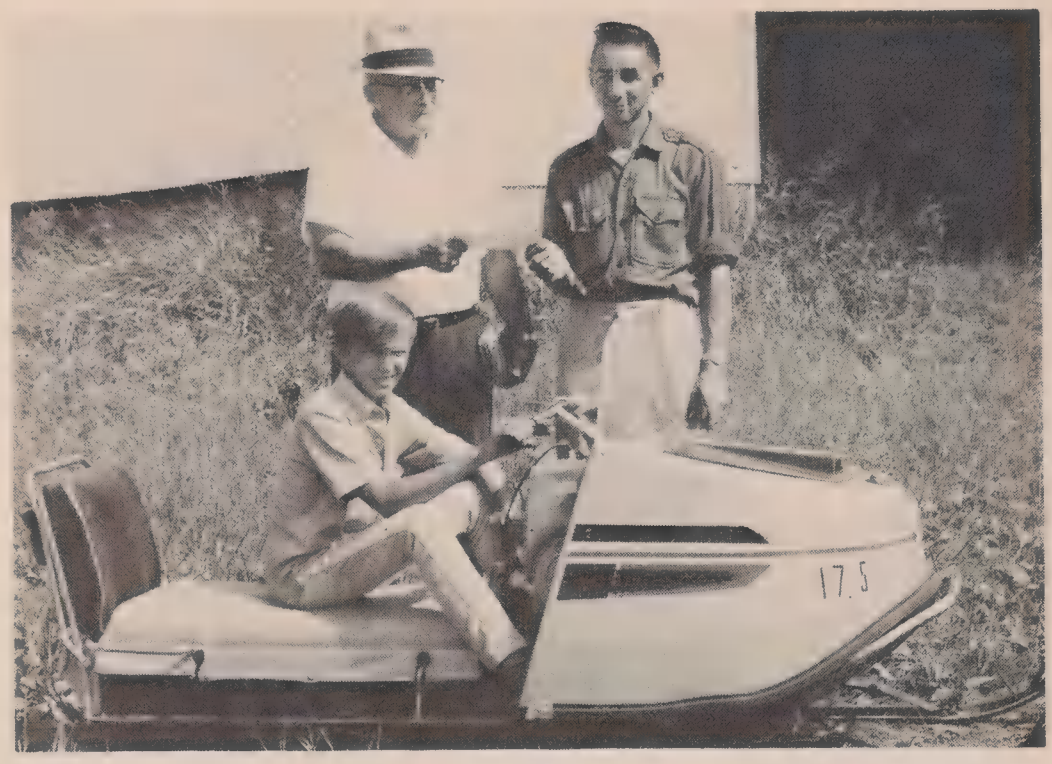
Descendants of Arthur Dustin and William Hall who lived in Geneva and Waterloo, New York, in late teens.

* * *

Address mail to: Service Bureau, Box 370, Ithaca, New York 14850.

SNOWMOBILE

Popular winter-time machine cause of serious injuries



Agent Ellis Smith of Richfield Spr., N.Y. hands $1020.43 check to John Knoblock, farmer from Little Falls, N.Y. and uncle of David Barragan sitting on the snowmobile. Mr. Knoblock took out policies on David in October to cover him while helping on the farm. In February David suffered a compound fracture of both bones of his lower right leg when the snowmobile rolled on him. He spent 20 days in the hospital and ran up $956.15 of medical bills.

The two North American policies, which went in force less than four months before the snowmobile accident, paid medical expenses and weekly income benefits totaling $1020.43.

Read through this list of claims paid for other snowmobile accidents, you may find a friend's name.

Gertrude S. Searl, Cuba, N.Y. $1052.85
Fell—broke leg
Deborah Roeske, Andover, N.Y. 406.36
Fell off horse—broke arm
W. Trevette Hornberger, Whitney Point, N.Y. 1393.28
Snowmobile acc.—injured leg
Bartol Krasovec, Gowanda, N.Y. 650.47
Fell on ice—broke arm
Howard Leach, Jr., Martville, N.Y. 170.00
Hit with sleigh—broke teeth
Frank Gatto, Jamestown, N.Y. 2172.84
Slipped on wet floor—inj. back
Gary Provoncha, Mooers, N.Y. 194.27
Using chain saw—inj. back
Robert Wilcox, Cortland, N.Y. 924.61
Thrown from horse—injured back
Leland David, Cortland, N.Y. 1224.28
Snowmobile Acc.—inj. chest
Dorothy Johnson, Delhi, N. Y. 103.42
Hit by cow—broke jaw
Charles Stadel, S. Wales, N.Y. 102.14
Snowmobile Acc.—broke leg
Douglas O'Connor, Buffalo, N.Y. 651.00
Slipped on ice—broke arm
Eloise B. Keefe, Dec'd, Ft. Covington, N.Y. 825.00
Snowmobile hit by car—loss of life
Joseph Ciaccio, Gloversville, N.Y. 179.28
Caught in garage door—inj. fingers
Helen Parmelee, LeRoy, N.Y. 305.00
Fell on ice—broke ankle
Thomas Lowe, Rodman, N.Y. 858.45
Fell from snowmobile—broke shoulder
Barbara Beutel, Watertown, N.Y. 139.87
Snowmobile fell on hand—broke finger
Judith Tuell, Rodman, N.Y. 211.42
Snowmobile accident—broke leg
Paul Ramos, Lowville, N.Y. 146.50
Snowmobile tipped over—broke knee
Shirley Benedict, Turin, N.Y. 185.00
Snowmobile acc.—broke tooth
Theodore Ingalls, Leicester, N.Y. 111.43
Loading silage—frost bitten fingers
Francis Eaton, Georgetown, N.Y. 376.43
Fell from ladder—broke wrist
Martha Wilson, Rochester, N.Y. 495.56
Turned ankle—broke leg
Basil Davis, Randall, N.Y. 105.71
Snowplow wing fell—inj. foot
Barbara Canfield, Youngstown, N.Y. 222.00
Fell—broke arm
Willard Edick, Boonville, N.Y. 383.18
Caught in P.T.O.—inj. leg

Sue Frendak, Skaneateles, N.Y. $ 895.00
Auto acc.—broke wrist, cut forehead
Murray Brand, Naples, N.Y. 475.00
Slipped on ice—broke hip
Floyd Eckler, Richfield Spa., N.Y. 331.65
Snowmobile acc.—broke ankle
Blanche Hart, Canton, N.Y. 210.00
Snowmobile acc.—broke arm
Adelia Teed, Watkins Glen, N.Y. 1069.59
Bitten by cat—inj. leg, foot
Francis Leon Karr, Avoca, N.Y. 773.66
Caught in P.T.O.—inj. leg
Frederick Lewis, Prattsburg, N.Y. 171.42
Snowmobile acc.—broke leg
Ruea Rude, Woodhull, N.Y. 383.70
Kicked by cow—broke arm
Blanche Zurn, Long Eddy, N.Y. 632.50
Auto accident—inj. neck
Theodore Gehm, Berkshire, N.Y. 1397.86
Fell through hay chute—broke arm
Bruce Barnhart, Nichols, N.Y. 793.06
Grain elevator slid—inj. back
Curtis L. Rumsey, Trumansburg, N.Y. 208.56
Riding on sled—inj. leg
Edith Powell, Gardiner, N.Y. 117.13
Slipped on ice—broke wrist
Dayton Newcombe, Newark, N.Y. 308.70
Fell—inj. shoulder and arm
Edward Lonneville, Walworth, N.Y. 288.36
Tripped on steps—broke toe
Helen Hendrick, Dundee, N.Y. 225.50
Fell on porch—broke arm
Hazel VanSice, Wyalusing, Pa. 448.15
Fell—broke ankle
Earl Bolton, LeRaysville, Pa. 405.00
Hit by falling tree—inj. head, hip
George Burgess, Cochranton, Pa. 1075.00
Thrown from bulldozer—inj. knee
Maynard M. Douglas, Pleasant Mount, Pa. 472.14
Slipped—injured knee
Edward Keida, Great Meadows, N.J. 1131.00
Fell from truck—inj. back
Nick Soleno, Pedricktown, N.J. 235.71
Fell off truck—inj. back
Scott Wright, Greenfield, Mass. 259.65
Fell skiing—broke leg
Edgar W. Doak, New Sweden, Me. 355.55
Scaffold fell—injured back
Nina Boyd, Whitingham, Vt. 1160.71
Fell—broke leg
Thomas J. Dean, Bennington, Vt. 599.70
Fell off horse—broke collarbone
Louis Carrier, Williamstown, Vt. 138.00
Snowmobile Acc.—broke ankle

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CHEVROLET

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